

THE MILLING WORLD

AND

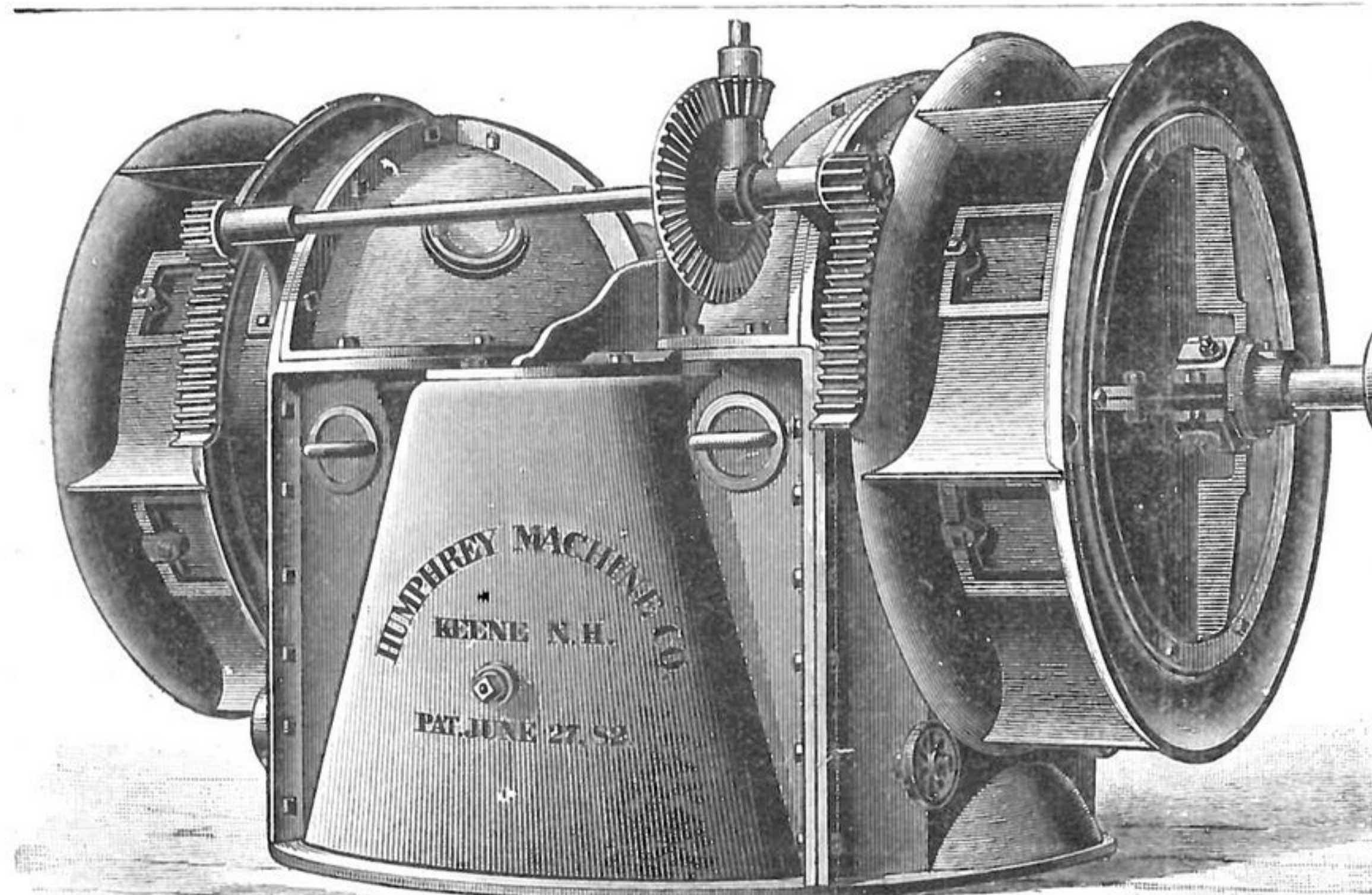
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXIII. No. 13.

BUFFALO, N. Y., NOVEMBER 24 1890

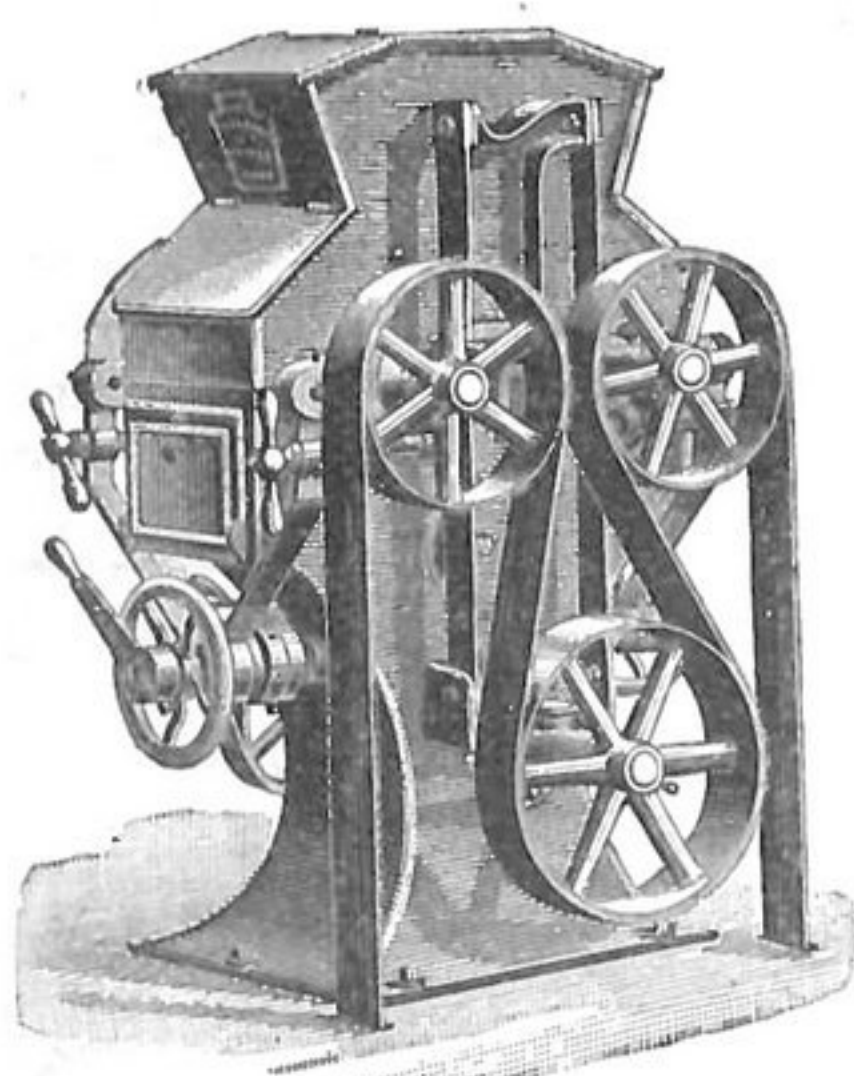
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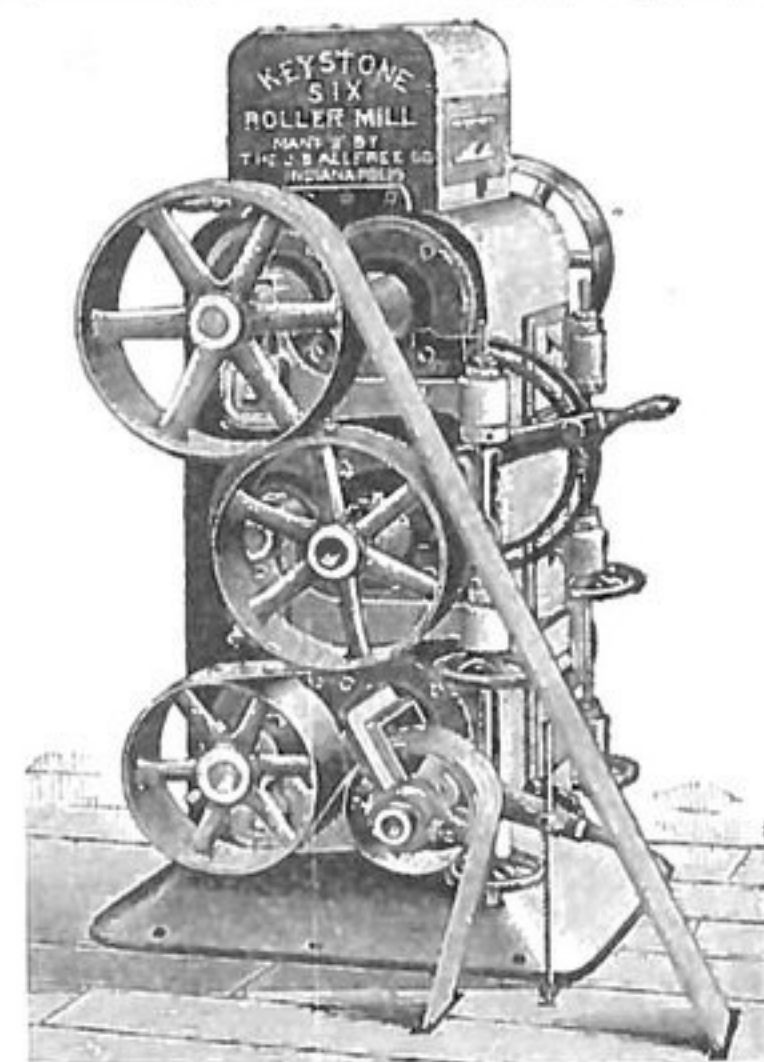
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GENTLEMEN: After running my 25-bbl. mill over one month I feel it my duty, and in justice to you, to state that I am more than pleased with the mill you built for me; it started like a clock from the word "go." Before making my contract I made careful inspection of the different systems and machinery in the best mills, and now feel that I have made no mistake in awarding you the contract. I am well satisfied that your guarantees have been more than fulfilled as regards percentages, yield and capacity. I undoubtedly have the best mill that has ever been built in Greene County, Pa. which, together with the superior quality of wheat, enables us to turn out grades of flour that are unequalled, and reports which I have received from expert bakers fully substantiate this statement. My clean-up is equal to any 25-bbl. mill in the State. I will say that "The J. B. Allfree Rolls and Flour Dressers" can not be beaten in the world for light running and ease of access to all their parts. I would advise any miller building a new mill, or remodeling an old one, to place their contract with The J. B. Allfree Co. Thanking you for the prompt and efficient manner in which you built my mill, and wishing you continued success, I remain,
ANDREW LANTZ.

WHITELEY, PA., AUG. 27, 1890.

SEND FOR CIRCULAR OF OUR 6-ROLLER CORN AND FEED MILL.

THE BEST IN THE WORLD TO-DAY.



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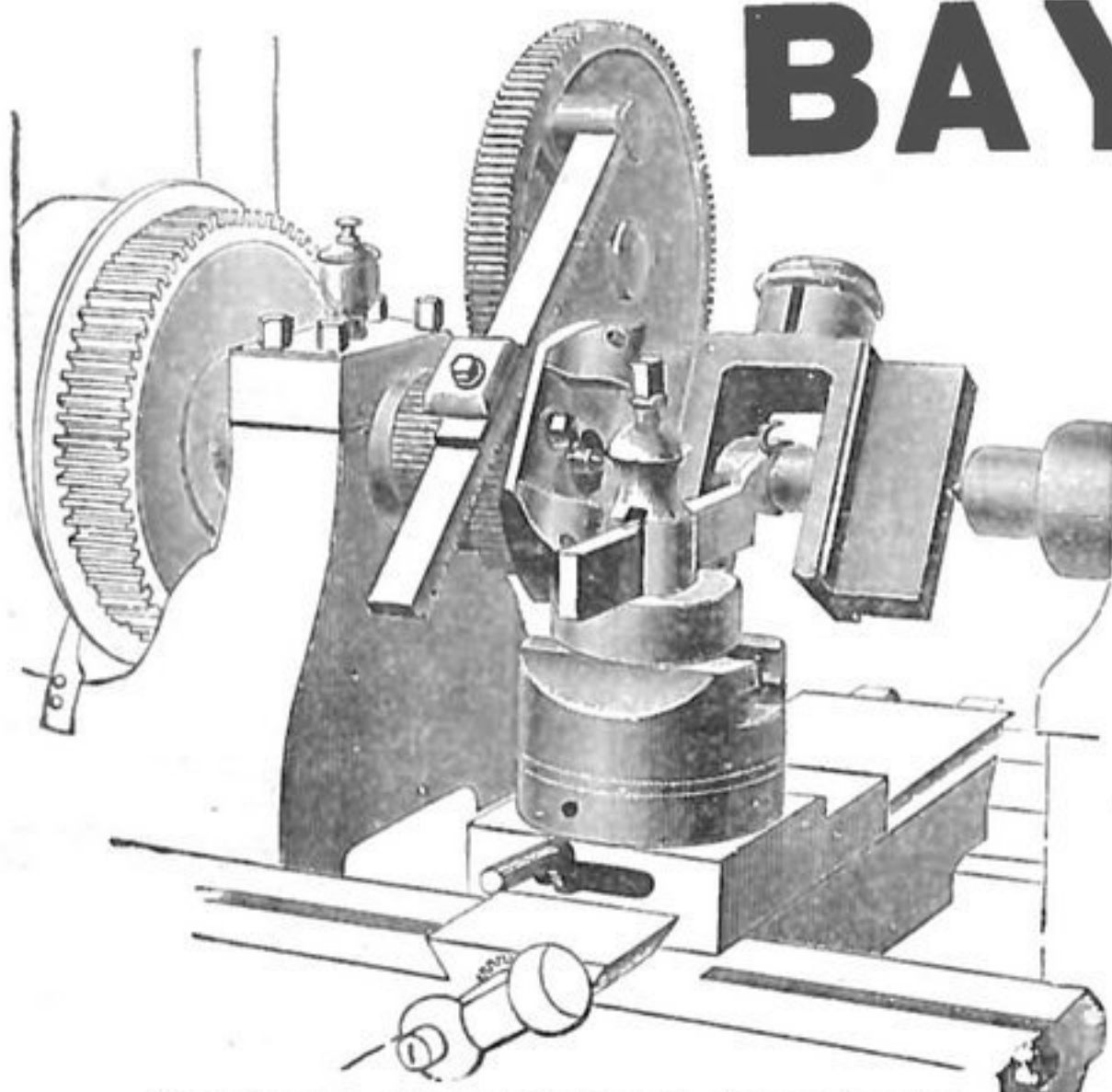
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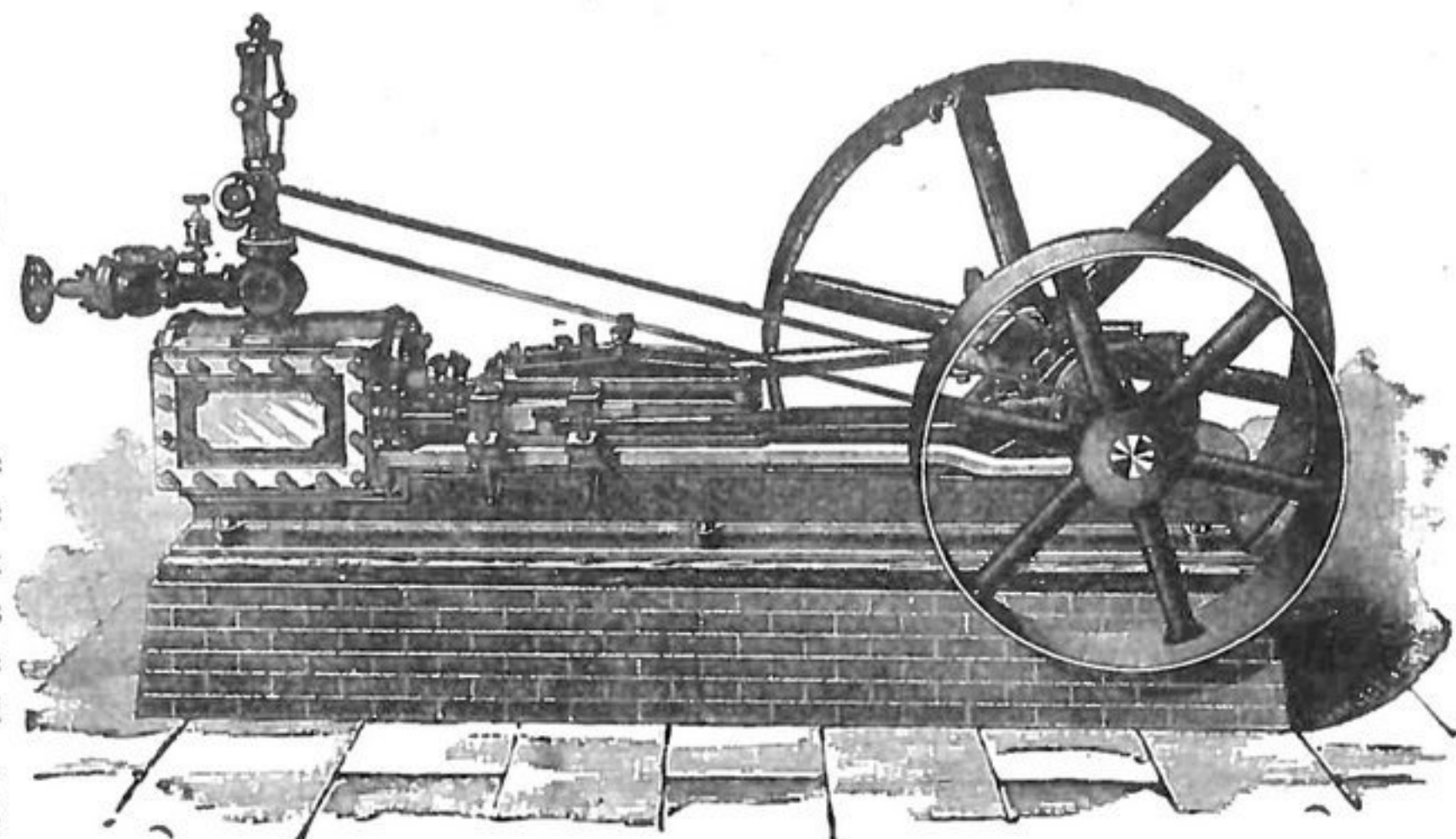
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The Case Roller Mills. Over 14,000 Pairs in Use.

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The accompanying cut is a correct illustration of our latest improved Four Roller Mill. For fine work, great durability, simplicity, and general excellence, they stand "head and shoulders" above all others.

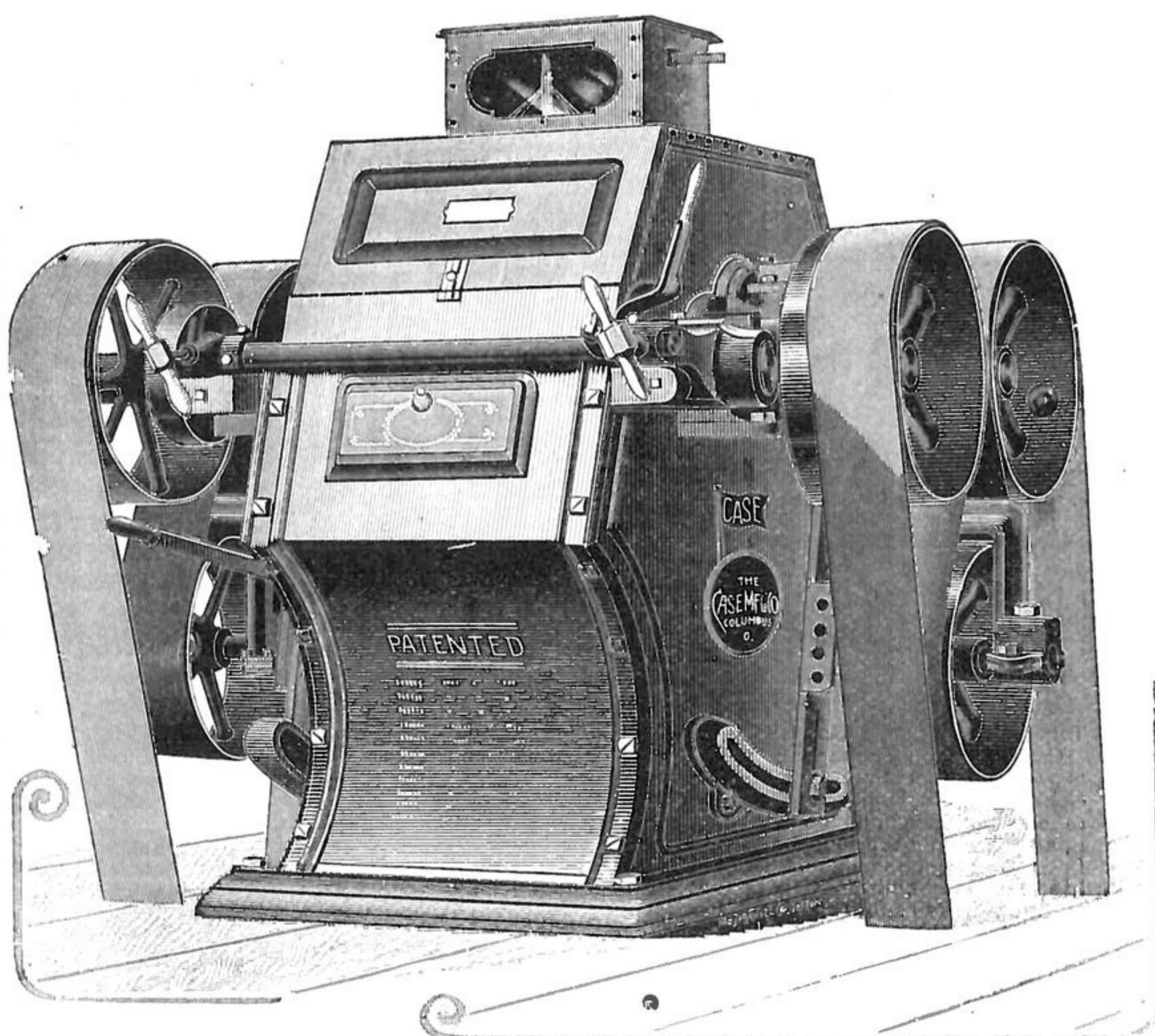
The frame is of iron with a heavy iron base.

The wood-work in top is of select cherry and black walnut, carefully shellacked and varnished.

The handles of adjusting screws and levers are finely nickel plated.

The joints are tight and dustless.

The adjustments easy, simple and perfect.



The roll bearings are wide and finely babbitted.

The belt drive is positive—no little short belts to slip.

The door for examining stock is a great convenience.

The arrangement for leveling rolls, simple and accurate.

The rolls can be thrown apart their entire length by one movement of the lever, and brought back again to original position, requiring no re-setting or experimenting.

Each machine is provided with our AUTOMATIC VIBRATING FEED, which requires no attention, and never fails to spread the feed the entire length of the rolls.



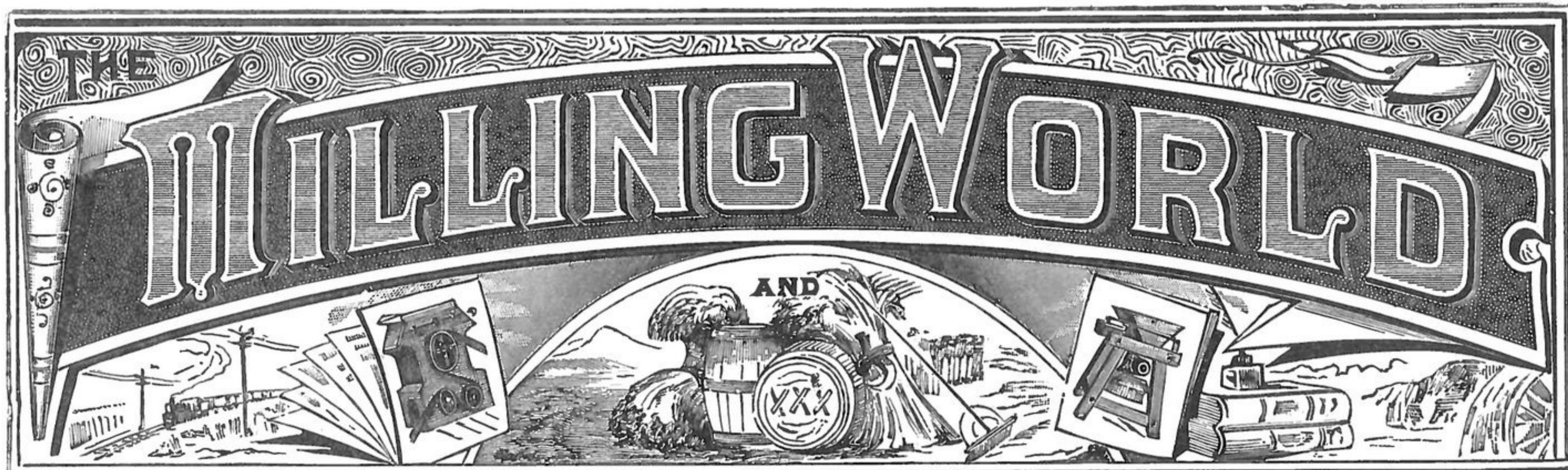
LISTEN! MICHIGAN MILLERS TALKING NOW.

CHARLOTTE, MICH., AUG. 5, 1890.

MESSRS. CASE MFG. CO., COLUMBUS, O.

Gentlemen: The mill is running fine. We are enjoying quite a fine little trade. Already have put over twenty tons of flour on the market here since we started the 7th of July, and it is giving elegant satisfaction. Every one who has seen our outfit pronounces it A 1, and the Case Automatic Feed can't be beat. In fact the Rolls are models of perfection. We are making a close finish and placing our goods alongside of the long system mills, carrying off the cake. We are highly pleased with the millwright work, and find your Messrs. McKenie and Shough congenial gentlemen to do business with.

Very truly yours, PERKINS & MOON.



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\$1.50 PER YEAR.

WHEAT values in New York fell off about 10 cents a bushel in consequence of the financial flurry. It is not easy to believe that wheat can long be kept down under the present conditions.

WORKERS in mills, who are popularly supposed to be especially prone to consumption because of the inhalation of dust, will be interested in the alleged discovery by Dr. Robert Koch, of Berlin, Germany, of a cure for consumption. It is announced that he has discovered a "lymph" which, injected under the skin of a person suffering with tubercular trouble, will kill the tissue that is being broken down by the "bacillus," and cause it to be removed. The scheme is a sort of inoculation, something like vaccination against smallpox. Should it prove to be a success, the worst disease known to humanity will be brought under control, and millions in the incipient stages of consumption, either of the lungs, joints or other parts, will be made sound and happy. Success to Koch!

PARTICULAR attention is directed to the advertisement of the "Encyclopædia Britannica," which appears in this issue. This great work is reproduced by the Henry G. Allen Company, of 122 and 124 Wabash avenue, Chicago, Ill., and 739 and 741 Broadway, New York, N. Y., and their reprint is the only one which is an accurate copy of the ninth edition of the "Encyclopædia Britannica." They have secured the right to use the American copyrighted articles in the original work, and they have also bought the plates of the "American Supplement," so that they are prepared to sell the whole work in 30 volumes, well printed, durably bound and in every way as serviceable as the original work, at the marvelously low rate of \$1.50 a volume, making the whole set in cloth cost but \$45, which is only a third of the original cost. The publishers have made it possible for persons of moderate means to own this fine work, and we cordially recommend the work to our readers. No other bargain in books equal to this has ever been known in the United States or elsewhere. Address the company for all desired information. Correspondence will be both interesting and profitable.

COMMERCIAL and economic writers use very confusing terms in their articles. Particularly is this the case where "raw material" is the term in question. The baker, for instance, calls flour "raw material," while it is in reality the finished material of the miller and represents a vast outlay of money, skill and labor in its production. The miller objects to the baker's classification of flour as "raw material," and then the miller turns around and calls grain "raw material," while it is really the finished product of the great farming interest of the country. The farmer objects to the miller's classification of grain, quite as justly as the miller objects to the baker's classification of flour. It is well to remember that "raw material" is not a correct term to apply to any material that has been touched by labor. The farmer, who grows wheat, corn, oats, potatoes or wool, is justified in calling them finished products. The simple fact that they are manipulated to prepare them for utilization does not abolish the simple fact that they are finished farm materials

when they leave the farm. Writers who delight in, or who at all events succeed in, befogging the public, should remember that correct views are more valuable than incorrect or confused ones. If grain is "raw material," so also is flour, and so is bread before it is toasted or made into other dishes. It seems better to recognize the fact, that when any material has been touched by labor and capital, it is no longer strictly "raw material," no matter how many stages it must pass through before reaching its stage of consumption or final utilization.

WHAT is the matter with stocks and securities? Too much speculation, too much interference with private business by meddlesome legislators, in the United States, while in Great Britain and Europe the cause is too much speculation, too many investments in wild-cat schemes of the Argentine and Indian stamp, and too much loading up in general with foreign stocks and securities. Great Britain, with her large surplus capital, enterprise and avarice, is the country that leads Europe in reckless financiering. Just how far and how deep the Britons have gone in this way, may be seen in the following summary, made by the London "Economist," of British investments in South American and South African enterprises, showing the enormous depreciation and losses borne by the British investors. The unredeemed South American loans amount to £145,000,000, South American railroad investments to £58,000,000 and nitrate mines to £3,500,000. The South African mines represent £10,000,000 and trust companies £60,000,000. At the highest average point this year, the total value of these investments was £291,400,000; their value on the 31st of October had fallen to £233,600,000, a shrinkage of no less than £57,800,000 on these groups alone. The following table shows the division of this:

	Highest value.	Value Oct. 31.	Shrinkage.
South American loans, &c....	£120,300,000	£101,500,000	£18,800,000
South American railroads....	66,700,000	56,800,000	9,900,000
Nitrate mines	5,400,000	2,600,000	2,800,000
South African mines	30,000,000	11,500,000	18,500,000
Trust companies.....	69,000,000	61,200,000	7,800,000
Total.....	291,400,000	233,600,000	57,800,000

The South American figures are exclusive of investments in "cedulas" other than the 7-per-cent. National Cédulas, this being the only issue included in the showing, but British "cedula" investments are estimated to exceed £100,000,000. The shrinkage in the value of these this year is probably not less than £30,000,000, so that the difference between the average highest and the latest reported prices of the securities reviewed is but little short of £90,000,000. Naturally these losses have caused panic and disaster, and the influence has been felt in the United States in the way of reduced business, and also in the depreciation of the values of American railroad stocks caused by the unloading of those stocks by the panicked British holders. The attempt of the British capitalists to carry the Argentine Republic and certain other great burdens always implies danger of the most serious character, as the present situation proves. Legitimate business, production, transportation, manufacturing, exchanging and consumption, is not seriously disturbed in amount, although values may fluctuate considerably while the storm is subsiding.

The DAWSON ROLL WORKS CO.

FOUNDERS & MACHINISTS,

—MANUFACTURERS OF THE—

Dawson Roller Mills

—AND FURNISHERS OF—

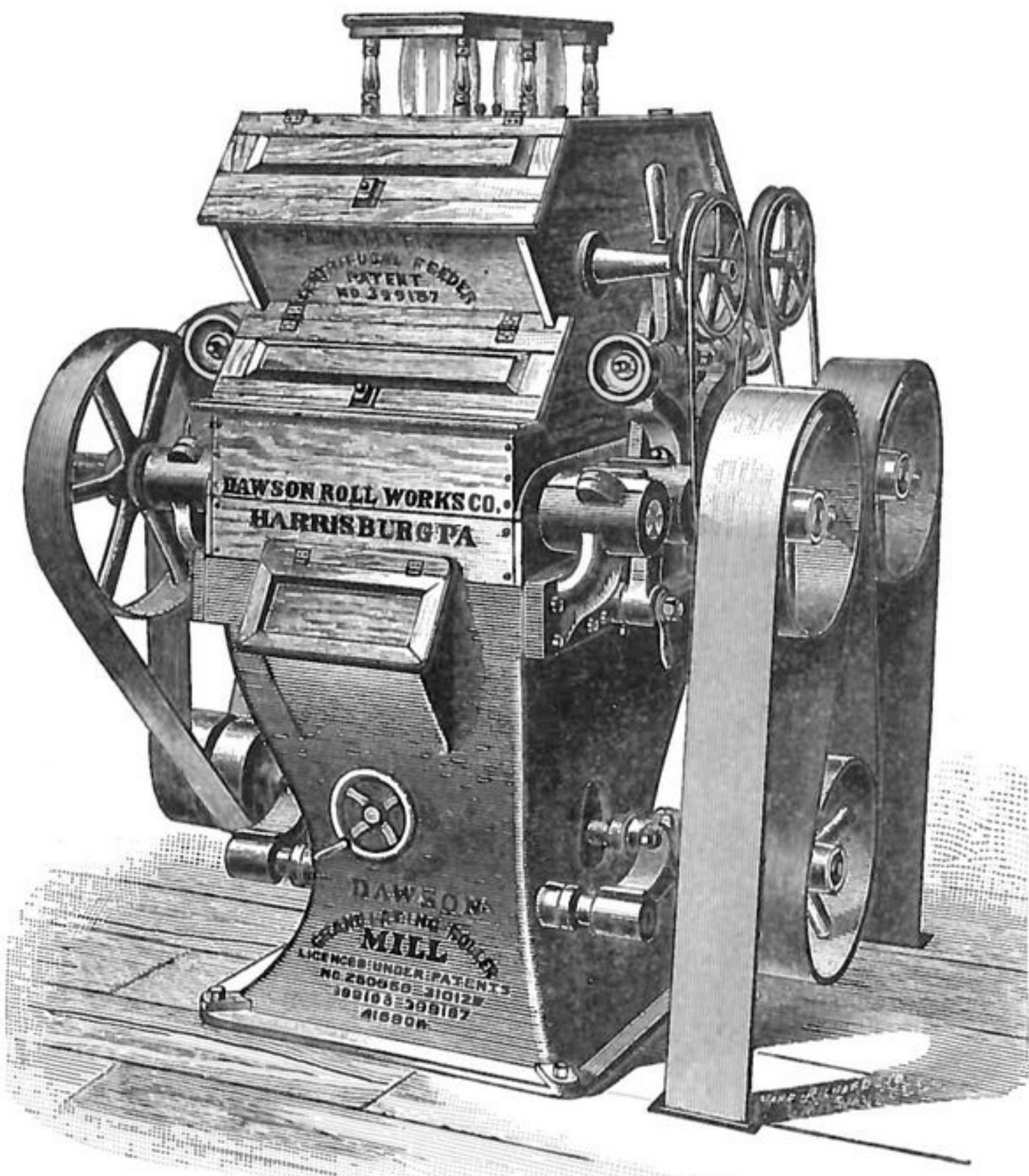
CHILLED IRON ROLLS

WITH DAWSON PATENT CORRUGATION.

ALL STYLES OF FLOUR MILL ROLLS RE-GROUND AND
RE-CORRUGATED WITH ANY FORM OF CORRUGATION.

We have had large and extended experience in grinding and corrugating chilled rolls for milling, and have one of the largest and most improved plants in the country for this work, which enables us to meet the most exacting requirements of the trade promptly.

ORDERS AND CORRESPONDENCE SOLICITED.



DAWSON ROLL WORKS CO.

South and Short Streets,

HARRISBURG, PA.



BEST STEEL SAFETY MADE FOR
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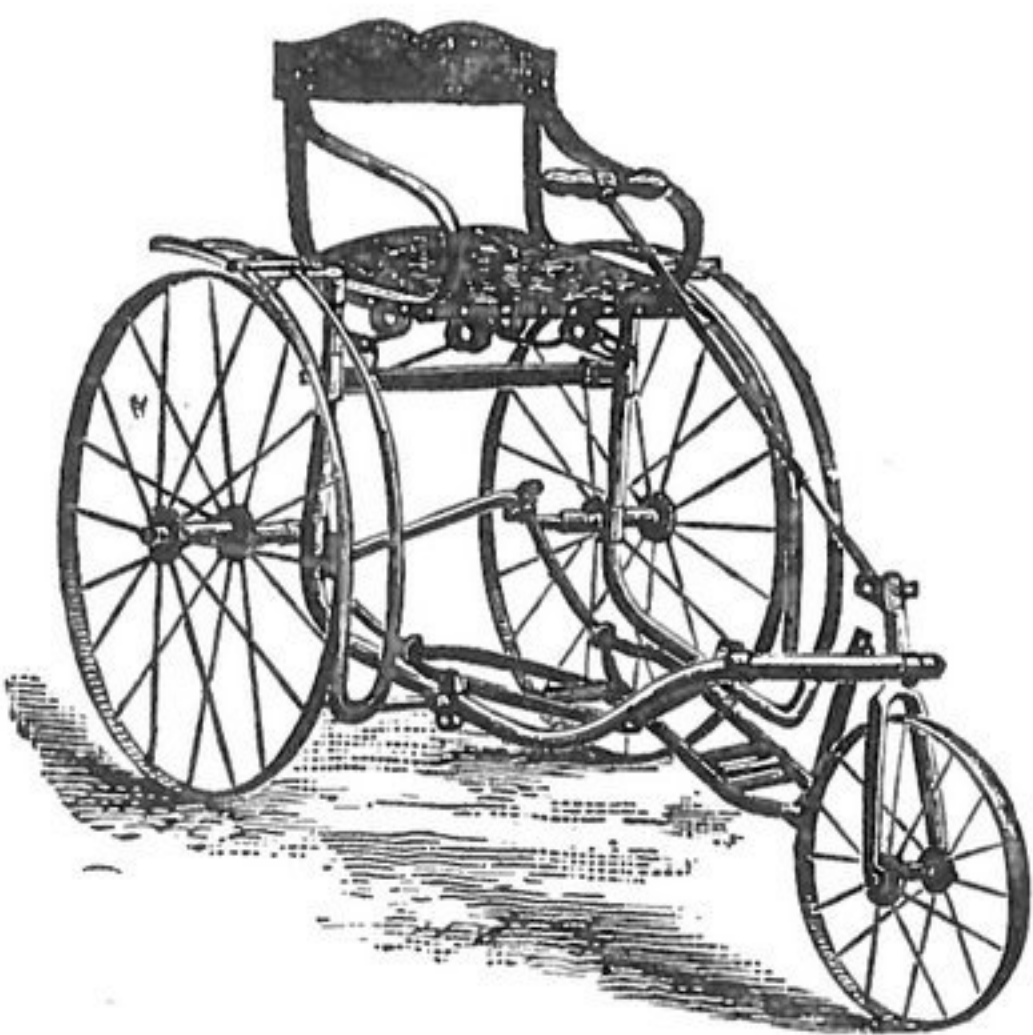
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Manufacturers of Ladies' and Girls' Tricycles, Ladies' and Boys' Safety Bicycles, Etc., Etc.

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Satisfaction ➤

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THOMAS McFAUL. JAMES NOLAN.

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Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for sale or to rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

WANTED, TO RENT.

A good Custom Mill, in a good grain section. Steam or water power. Address, MILLER, P. O. Box 170, Pocomoke City, Worcester County, Md. 252

FOR SALE AT A BARGAIN

I have a half interest in a Short System Roller Mill which I will sell at a bargain. Don't write unless you mean business. Address, GEO. FOSTER, Wakeman, O. 47

FOR SALE.

One No 1 Howes, Babcock & Co, Silver Creek, N. Y., Lengthened Scourer and Smutter, nearly new. Address, CHAS. SCHOEPLIN & BRO, Gardenville, N. Y. 46

FOR RENT.

Clinton Mills, at Black Rock, Buffalo, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 311 Main Street, Buffalo, N. Y. 6tf

FOR SALE.

Rare chance, Grist, Saw, Planing Mill, Lumber and Coal Yard, doing good business. Growing village; 15 miles from Washington. Owner wishes to retire. Small capital needed. Terms easy. A. FREEMAN, Vienna, Va. 37

FOR SALE

Whole or part of a 125-barrel Flouring Mill, built entirely new from ground up. Equipped with latest machinery. Side track at mill door. Located in South Michigan. Big local and exchange trade. For further particulars address B. B., care of THE MILLING WORLD. 37

FOR SALE

Flour and saw-mill with or without farm of 38 acres. Four buhr mill, with machinery and building in most excellent condition. Buildings on farm good. Good run of custom. Can run by water 9 months, also have steam power. Terms easy. On Big Indian Creek, ¼-mile from Crandall, on Air Line. Mrs. C. KRACKMAN, Crandall, Ind. 36

MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
Three No. 1 Corn Shellers, capacity 200 to 300 bushels per hour; new.
One No. 2 Purifier. New. Best make. A bargain.
One 20-Inch Portable Mill.
One 18-Inch Double Gear Portable Mill.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

FOR SALE AT A GREAT BARGAIN.

The Reist Roller Mill, at Williamsville, 4½ miles from Buffalo city line. Eighteen acres of land, with dwelling houses, twenty-two feet fall stone dam, Leffel Turbine water wheels, water the year round, steam power to assist in extreme dry seasons. Nine set 9x18 Stevens Rolls, two run of stone, three George T. Smith purifiers, grain-cleaners, scalping and bolting capacity for 80 to 100 barrels per twenty-four hours, etc., etc. Title perfect, bought at Sheriff's sale. Mill was mortgaged for \$18,000; will sell for \$5,500, without regard to loss, as I am no miller, but engaged in other business. The quick buyer will secure a great bargain. Address, WILLIS B. MUSSER, Lancaster, Pa., or my attorneys, BAKER, SCHWARTZ & DAKE, Esqs., Hayen Building, Buffalo, N. Y. 912

FLOUR MILL WANTED.

Flouring-mill wanted at Evart, Osceola Co., Mich. Good wheat region, large territory. Correspondence solicited. GEO. W. MINCHIN, Evart, Osceola Co., Mich. 69

WILL the Millers' National Association of the United States of North America hold its annual convention for 1891 in Europe? It might as well go to Europe to reside permanently, so far as its "influence" on American milling is concerned.

READERS who may wish to get copies of William R. Voller's valuable "Modern Flour Milling," the latest notable addition to the literature of milling, can get the work through THE MILLING WORLD for \$1.60 per copy. This price includes the postage from Gloucester, England, where Mr. Voller publishes the book. For the small sum of \$2.75 subscribers can get the book and THE MILLING WORLD for one year. The book gives American flour-makers a comprehensive view of British milling through the eyes of one of the foremost of British millers.

NEW YORK flour-dealers profess to believe that railroad or ocean rates, or both, must be cut in favor of millers in the West, who are said to be exporting flour for 25 cents a barrel less than the New York dealers can export it. Is the cut the work of the Canadian railroads and steamship lines? If it is, what can be done about it so long as the fool Interstate Commerce Law ties the hands of American railroad managers? New York is a nest of foreign importers, and New York ought to be willing to suffer for the benefit of foreign corporations that happen to be British. The Interstate Commerce Law plays in the hands of foreigners, and the New York importers ought not to kick.

HAVE our esteemed monthly milling cotemporaries heard that a second new monthly milling journal is one of the possibilities of the near future? Have they heard of the proposition made to start one in the Mississippi Valley, in a city not yet decided upon definitely, but possibly in a town that already possesses at least one milling journal? Have they heard of the desperate attempts recently made to purchase one old and firmly established milling journal as a basis for the project? The plan may go through, and it may fall through, but our esteemed cotemporaries should be prepared for all sorts of competition. The only novelty in milling journalism now possible would be a daily milling paper, and we feel like saying: Well, what's the matter with starting a daily milling journal?

A GLANCE at the "European Echoes" in this issue shows that the British flour-makers and milling-machinery manufacturers have at least two absorbing topics for discussion. One is the attempt to form a great "bread reform league," which is calculated to drive or induce all the consumers of white bread to use "whole-meal bread." This is the bran-fad of days of yore, and it gets some hard knocks from British knuckles. The other is the proposition to create in the National Association of British and Irish Millers a so-called "technical committee," whose duty it shall be to decide upon the merits or demerits of milling machines and systems. This proposition excites the ire and the alarm of some of the manufacturers of machinery, and it promises to be vigorously opposed. Such a committee is by no means a novelty, for the Pennsylvania State Miller's Association has created just such a critical and advisory body. At the late convention of the Pennsylvania association this committee went so far as to make a direct onslaught upon the short system, and its report was adopted by the convention. If the British millers or engineers imagine that such a committee can do either good or harm, they would do well to study the effect of the Pennsylvania pronunciamento on short-system milling in the United States, or even in Pennsylvania. No committee could ever prevent a good machine from gaining currency, and no committee could ever keep a poor machine from falling out of the race. Evidently some of the British critics are scared before they are hurt.

LABOR AND CHEAPNESS.

A. B. SALOM.

LABOR has a decided, a direct and an inextinguishable interest in "cheapness." The question of prices of wares interests labor far more than it interests any other element that enters into the production of the wares. Capital is less directly interested than labor, for the simple reason that capital is generally in such a position that it can command the situation. It can claim that its margin shall be constant. If conditions conspire to reduce the margin, capital can cease production. It is this power of capital that throws the question of "cheapness" wholly upon labor for consideration and judgment. The capitalist who employs a dollar can generally demand a return of more than a dollar, ten or twenty cents more. If conditions depress the selling price so that his dollar comes back without its earning, he is not forced to send it out again. He can withhold it until the conditions change and the return is assured.

Capital makes an article that retails for a dollar. Labor has received from 50 to 75 cents for making the article, leaving capital from 25 to 50 cents for investment and administration. Market conditions change so that the retail price sinks to 75 cents. "Cheapness" is reached. Consumers rejoice. Why? Labor should not forget that the vaunted "cheapness" does not imply that capital is to gain less for producing the article. There must be a reduction in the elements of cost in production. Labor is interested in locating the reduction, and generally labor will find labor suffering the greatest reduction. Capital, that paid labor 50 to 75 cents for producing the article, will be found demanding that labor must now do the work for less wages, from 30 to 50 cents, for instance. At this point arises the struggle that never has been ended, and that never will be ended so long as the relations between labor and capital are essentially what they now are.

Labor rebels against the reduction. Capital insists. Labor strikes. Capital waits. The demon of "cheapness" has come between them, casting its baleful shadow on the essentially weaker of the two forces. The "cheap" ware has proved to be a dear bargain for labor. Labor holds out, suffers, loses, surrenders. Capital wins, and the wheels move again. Labor has eaten its "cheap" loaf at enormous expense. Capital has demonstrated its ability to enforce its demand for "cheap" labor to match the "cheap" ware. Capital is not necessarily nor justly to be called wholly selfish in this contest. Capital is not in production for the mere purpose of dissipating itself into thin air. It must grow, or it must disappear. Labor may claim that capital is utterly selfish, but that claim will not abrogate the law of self-protection, which is quite as binding upon capital as upon anything and everything else. Labor claims that it is more indispensable to capital than capital is to it. That claim has never been demonstrated, and until it has been shown to be tenable it would be well to abandon it. Let aggregate labor show its power to conduct great producing enterprises independently of aggregate capital, and at once the relations of the two elements will undergo a change. That change is, it is safe to say, one of the impossibilities.

Consideration of the subject of cheapness, as related to labor, is likely to convince the thinker and the observer that greater and greater cheapness generally implies less and less benefit to labor, and more and more benefit to the consumer who is not producing and is simply living on an income, while the relation of capital to prices is a generally constant factor. Some modern "leaders" are trying to convince labor that it is possible for labor to make wares dearer, by demanding higher reward in the form of wages, and at the same time possible for capital to produce them cheaper under the increased cost of labor! These "leaders" appear to have solved the nursery problem of eating one's cake and yet having it! They demand a double cut on the slice of capital. They ask for more wages for producing, and they ask for a lower price on the product at the same time. In case capital could be prevailed upon to try to grant all that is asked of it by the mountebank "leaders" of these days, it would be interesting to note the course of events. It is

safe to say that capital would soon be wiped out utterly, and the world would be thrown back upon the one element of labor for a fresh start.

European nations have shown what the effect of eternal cheapening is upon labor. In those countries the only element that bore the burden was labor. Conditions of trade and production were ever calling for cheaper and cheaper wares. The raw materials bore a constant value. Capital demanded and exacted a constant margin. On labor alone fell the dire task of self-denial, of distressful over-work, of living on less and less and of always doing more and more to answer the demands of the devil of cheapness. The result is that the producing elements of European nations have been and now are in dire straits. Meanwhile, European capital has not shared in the distress of European labor. The millions of wretched, half-starved, half-naked laborers have seen thousands of capitalists grow into millionaires from the margin that exists always between the cost of production and the market price of the product. Capital has held its margins through all the centuries of distress, and labor's pitiful margin has grown steadily narrower and narrower as the devil of cheapness grew more and more exacting. European economical writers, capitalists, middlemen, exporters and consumers have preached incessantly on the necessity that demands that labor shall at all times, in all nations, stand ready to lose more and more as the spirit of cheapening grows keener. Capital still breeds its millionaires. Labor still bleeds to nourish the millionaires. Labor has so cheapened everything in Europe, including itself, that it is no longer able to buy the cheap wares it is turning out. European labor produces beautiful and valuable wares cheaply, not for its own use, but for the consumers of other countries.

Laboring men gain little or nothing from cheapness that is the result of their own hard work. The economist who boasts of cheapness as the result of a system has no just conception of the part played by labor in bringing about that result. The cheapest countries are not the best to live in, as Europe proves to-day. The dearest countries are not the worst to live in, as the United States proves. Economists are living who deny both these propositions, but the cold fact is worth oceans of denial and unprovable assertion. Cheapness is the cry of all nations, but labor should study the cost to itself of incessant cheapening. No article is dear that gives labor a proper reward for production, along with a just return to capital. No article is cheap that robs labor of its reward and does not pay capital its due. Labor should, first of all, be reckoned. Capital does not willingly cut down its aid, labor, but is generally forced to do so by influences which it can not control. Labor has many evils to contend with, and the greatest of them all, the farthest reaching, the most unreasonable and the most inexorable is the devil of cheapness that has seized and is controlling the civilized nations at the close of the nineteenth century.

POINTS IN MILLING.

THE more I read the reports of conditions under which British and other European millers work, the more I am convinced that British and European rules, methods and processes in flour-making are not to be followed by flour-makers in this country. British rules, especially, are evolved under conditions that do not exist in the United States at all, and therefore they are wholly inapplicable to American milling. For instance, it is announced that British millers receive Indian wheats in a state of incredible filth. The grain is so mixed with a fine, choky, smoky, stinking dust that the miller who attempts to handle it nearly kills his neighbors with the dust, is condemned as a nuisance, and is forced to drop the nasty stuff. To handle wheat so incredibly filthy will cause certain rules to be followed, but those rules, concerning cleaning, for example, are useless to American millers, whose grain is not so outrageously nasty.

WHILE British cleaning rules are thus plainly inapplicable to the American mills, the British grain-separation rules are

equally out of the way for American mills. The miller in this country can not comprehend the British rules until he reads the cold official declaration that Indian wheats of the highest grade contain from 2 to 3 bushels of other seeds in every 100 bushels, while the inferior grades often contain from 8 to 14 bushels of all sorts of seeds in every 100 bushels of wheat. Remember, too, that this is in addition to the horrible dust mentioned above, which must range from 1 to 3 bushels in the 100. Persian wheats are still worse, so far as foreign seeds are concerned, as the grain-growers or merchants of that country manage to work from 30 to 40 bushels of barley, cockle, mustard, garlic and wild-weed seeds into every 100 bushels of grain which they send out under the name of, and at the price of, wheat. Even the Russian wheats are accused of being badly mixed with seeds and dirt, and the Southern Hemisphere wheats are open to the same charge.

If this were the extent of the evil conditions, it would mean a sufficiently uncomfortable situation for the British and European millers. Besides these intrusions of all sorts of seeds and all sorts of filth, the foreign miller must struggle with inferior quality in the wheat that is left after he has removed the seeds, gravel, mud, comminuted camel-dung, and other impurities from the mixture which he has bought as wheat. All this means a condition, or a set of conditions, that must render milling in plants devoted to such grain a thing so entirely different from American milling that the practices there and here are wholly irreconcilable.

THE eternal steaming, whizzing, drying and general abusing of wheat grain in British mills before grinding can be understood in the light of such facts as I quote above. With the sound, clean, excellent wheats of the United States to handle, it is difficult to understand what necessity there can possibly be for the introduction of any of the British practices in American mills. That there is, in some quarters, a tendency to imitate British practices, I know perfectly well. Here and there I find Englishmen operating mills, or trying to operate them, just as they operated mills in England. Here and there the heater, the drier, the steamer, or some other dingus, is to be found added to the usual equipment. Here and there is to be found a milling writer, not always a practical flour-maker, advocating the use of these extra machines, and pointing out their absolute necessity in the case of certain kinds of American wheats. It will probably be the next fad among our flour-makers to rush the adoption of two or three extra and entirely unnecessary machines in their mills.

FINANCIALLY, it will be a bad move to adopt these wrinkles. It will largely increase the first cost of the plant, and it means greater maintenance expenses, greater power expenses, greater labor expenses, greater expenses in every conceivable way. Millers will agree with me that mills, as at present built and equipped, are sufficiently expensive, and that any further additional expenses should be coupled with a very certain increase in profits. The outlook does not promise extra profits.

BESIDES being a financial mistake, the addition of steaming and other allied practices would very probably result in lowering the quality of the flour produced. It is not denied that flour produced in mills in Europe, where these cooking practices prevail, is flour that will not keep well, that lacks life, and that is in general an inferior product. Where "blended" wheats are ground, it may require cooking to "toughen the bran of the tender grain," and to "tenderize the bran of the tougher grain," to bring all the mixture to one degree of toughness or tenderness, but every man who has ground wheat knows that treatment so violent in steam or dry heat must seriously affect the floury portion of the grain while this toughening and tenderizing are going on. Every man knows that any change from the normal implies further changes that go on indefinitely, in so delicate and so easily altered or spoiled a substance as flour.

INDIAN and other nasty foreign wheat may be too dirty to grind without bathing or cooking it to relieve it from the superfluous fertilizer adhering to it, and too brittle or too tough to be broken without steaming or roasting it, and too thin and flabby to stand alone after it is ground, but in all these things such wheats are directly opposite to those of this country. The means used to grind them are not needed here. American flour holds the front rank simply because it is made from high-grade wheat on a common-sense method of grinding, and it will lose its rank just as soon as it is produced in the same harum-scarum manner in which some European flours are produced. Even the finest American wheat, washed, soaked, scalded, steamed or roasted to death, would yield only inferior, bad-colored, bad-flavored and bad-keeping flour.

THE miller, in adopting radical changes, has to keep the baker in view. It is through the baker he learns the value or the demerit of his flour. He is the most judicious miller who takes pains to see the bread that is made from his flour, wherever and whenever possible. I know one miller, who has for years run a fair-sized flouring plant, who has never seen a loaf of bread made from any of the flour he has ground. His table is supplied with bakery bread, and he would not recognize his own flour in a loaf. It is a wise plan for a miller to learn, and to practice, actual doughing and baking tests for his flour. Every mill of considerable capacity should have a testing apparatus. Many of the larger mills are supplied with testing departments, and such mills can always furnish to a customer just what he wishes to get. The plan works well for the great mills, and there is every reason why it should work equally well for the medium mills.

I NOTE that the English custom-house officers and others interested in the grain trade are taking steps to change the ratio of wheat grain to wheat flour that has so long been employed in Great Britain. The present ratio is based on the assumption that foreign wheats milled in England produce 80.8 per cent. of flour, which means about 4 bushels and 2 pounds of wheat to the barrel, a "big yield" enough to satisfy even the average American "big-yielder" from Bigyildborough. The effort is made to reduce the ratio to 70, or 71, or 72 per cent., which means close to 5 bushels of grain to the barrel of 196 pounds of flour. Evidently the "big-yielder" is not numerously heard in the land of the Briton. There is not the slightest sane doubt in the world that the ratio of 80.8 is far too high, and that 72 is far nearer the true ratio of practice. The men who abolish the wheat crease and its contents by a scratch of a pen may be well satisfied with 80 ratio, but the men who can see the crease-dirt prefer to trust 70 or 72 as a correct ratio.

MILLING PATENTS.

Among the patents granted November 18, 1890, are the following:

The C. A. Gambrill Mfg. Co., Baltimore, Md., registered trade-mark No. 18,638, wheat flour, the word "Medora."

Chas. H. Cooley and Francis H. Richards, Hartford, Conn., No. 440,740, a scale-beam for grain-weighers, assigned to the Pratt & Whitney Co., same place.

Noah W. Holt, Manchester, Mich., No. 440,634, a separator-machine, comprising the combination of a fan, a fan-case, a purifier-chamber beneath said fan-case, provided with a discharge-spout, an oscillatory revolving sieve in said purifier-chamber, a settling-chamber leading from above the fan-case to the bottom of the purifier-chamber, and air-ports opening from the purifier-chamber into the settling-chamber beneath said sieve, whereby a continuous circulation of the same identical air-current is established through the sieve by the action of the fan, and also the combination of the fan, the fan-shaft, the purifier-chamber, the sleeve journaled eccentrically upon the fan-shaft, the brush-frame supported by links from the top of the purifier-chamber and rigidly connected with said sleeve, whereby the latter is sustained, the sieve-frame journaled upon said sleeve, the wheel for

revolving the sieve-frame, and the shaft whereby such wheel is driven stepped upon the brush-frame, whereby it partakes of the vibrations of the sieve and brush frames.

Charles H. Phillips, Boston, Mass., No. 440,794, a grain-weighing machine, comprising the combination of two buckets or receptacles arranged side by side and having a vertical movement, a scale-beam or balance connected to each bucket or receptacle and operating to hold the bucket in position, but permitting its descent when it has received a load equal in weight to the weight indicated upon the balance or scale-beam, an oscillating chute discharging alternately into one bucket or the other, according to the position of the end of the chute, mechanism operated by the movement of a loaded bucket to oscillate the chute, whereby it will discharge into the empty bucket, a double-faced chute pivoted under the discharging-chute and oscillating in an opposite direction, and mechanism operated by the downward movement of each bucket to oscillate simultaneously the chutes in opposite directions.

Frank Lauhoff, Detroit, Mich., No. 440,866, preparation of cereals, a new article or product from corn, consisting of hulled and purified compressed films made from the raw material retained in its normally-dry character, the process of producing consisting in first crushing the cereal in its normally-dry condition to granules and subsequently subjecting said granules in their normally-dry condition to a drawing compression.

Frank Noble, Minneapolis, Minn., No. 440,883, a gravity-scalper, comprising the combination, with a spring-bar having a rigid central portion and flexible ends secured to relatively fixed supports, of a sieve mounted on the rigid portion of said bar and solely supported thereby, and a knocker adapted to strike said bar and impart vibration to said sieve, and also the combination, with a suitable frame, of a pair of spring-bars having rigid central portions and flexible ends, adjustable devices for adjustably securing the ends of said bars to said frame, a sieve mounted on the rigid portions of said bars and supported solely thereby, and knockers for striking the rigid portions of said bars and imparting vibration thereto.

Levi Lash, Waverly, Mo., No. 440,920, a feeder for roller-mills, comprising the combination, with a feed-hopper and rolls of a roller-mill, of a vibrating conductor or shoe having a shelf provided with an attached arresting distributing-ledge, said ledge being vertically adjustable on a transverse bar or block extending across the shelf and located intermediate of the upper and lower ends of the shelf; also the combination, with the rolls of a roller-mill, of a vibrating shoe or conductor having an inclined upper shelf and an arresting-ledge connected to a transverse bar or block extending across the shelf intermediate of the upper and lower ends of said shelf, and which is made adjustable up and down toward or from the shelf, and a lower shelf having an arresting-ledge connected to a transverse bar or block also extending across the shelf intermediate of the upper and lower edges of said shelf and also made adjustable up and down, and an intermediate reversely-inclined shelf located relatively to the hopper and rollers.

Magnus Swenson, Fort Scott, Kan., No. 440,931, an endless grain-carrier, comprising the combination of the transverse bars or lags of the carrier, with chains having teeth-receiving links formed of bars, one of which is higher than the other and has the lag secured to it, whereby a lateral discharge-opening is provided between the top of the other bar and the projecting portion of the lag for the escape of trash from the socket of the link.

Henry Tunte, Cleveland, O., No. 440,975, a process of manufacturing flour, consisting essentially, first, in reducing the grain and eliminating therefrom the germ element, and, second, incorporating a small percentage of sugar in the product.

NORTHERN INDIANA MILLERS.

The annual meeting of the association of Northern Indiana Millers was held in Fort Wayne, Ind., on Tuesday, November 18. There was a good attendance, and the meet-

ing was an interesting one. Among the millers present were the following: E. E. Perry, Indianapolis; W. A. Scott, W. A. Clark, Van Wert; C. W. Tuttle, Columbia City; John W. Strouse, Huntington, and J. W. Caldwell, Fremont. President F. E. C. Hawks, of Goshen, and Secretary John B. Monning, of Fort Wayne, were in their respective chairs. President Hawk made an able and entertaining address. Secretary E. E. Perry, of the State Association, read an interesting paper. H. C. Williams, associate editor of "The Millstone," Indianapolis, gave an address on subjects of current interest to millers. The millers decided to hold a meeting in Warsaw, Indiana, in February, 1891, and the election of officers of the association will occur in that meeting. Important business will be planned for the February meeting. The Indiana millers are moving solidly in the direction of co-operation, and their local and State associations are becoming very strong in numbers and influence.

A NEW MILLING JOURNAL.

According to a letter just received from Silver Creek, N. Y., a new milling journal will make its appearance in that village in December. Its name is "The Honest Miller," and Mr. George B. Douglas is editor and proprietor. It is to be a monthly journal, and will doubtless be largely patronized by the milling-machinery firms in that village. There is plenty of room for new milling journals. Success to the new venture in Silver Creek.

AUSTRALIAN WHEAT DETERIORATING.

Says the "South Australian Chronicle": A matter of vital importance to the farming community, and indeed to the whole colony, has been recently brought under the notice of the Bureau of Agriculture by the Flour Millowners' Association. It appears that for past years there has been a gradual deterioration in the strength of South Australian flour, caused by the decreasing gluten-producing power of our wheat. Efforts have been made from time to time to establish a trade with Europe in South Australian flour, so as more fully to utilize the mill-power of the country, which is capable of doing twice the work that can now be found for it. The capital sunk in buildings and machinery in connection with flour-milling in this colony is considerable, and it seems probable that the rapid development of wheat-growing in New South Wales will shortly enable that colony to supply its own breadstuff requirements, thus still further curtailing our inter-colonial exports of flour, and rendering it more than ever necessary that a trade with Europe should be established. The placing of flour on the London market means that it is brought into competition with the American product, which is much stronger in gluten than our own, and is consequently largely used for mixing purposes by English bakers. Our wheats, being exceptionally dry, are bought to mix with the damper wheats and are greatly in favor, the gluten being supplied by the wheats mixed with them; but our flour, although good in color, sells sparingly and mainly for pastry purposes. In Victoria the millers this year have also great trouble in maintaining the standard of gluten in their flour. That the staff of life should become weaker and weaker is a serious matter, and one which may well command the attention of our agricultural chemists and scientific farmers. Is it the effect of the exhaustion of soils, brought about by the repeated cropping without manuring, or is it the outcome of repeatedly sowing the same kind of seed year after year? Experiments with different kinds of manures might lead to satisfactory results, but the element of expense is, of course, an important consideration. There is in the caves at Narracoorte a large quantity of very valuable guano, estimated at upward of 3,000 tons, but it sells very slowly in South Australia, the bulk of the quantity taken out going to Victoria. The dryness and delicacy of South Australian wheat will always command for it high prices in the world's markets, and if we would utilize our mill-power and increase or even maintain the present export of flour, we must endeavor to strengthen the gluten producing quality of our wheat. A

large manufacture of flour would give employment to a number of hands and cheapen the price of bran and pollard to the manifest benefit of the stock-owners. The Bureau of Agriculture will be doing a great service to the country if it can suggest some practical remedy for the deterioration complained of, and the government would do well to remit the duty on wheat imported from other countries for seed purposes.

A NEW METHOD OF TREATING DISEASE.

HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.

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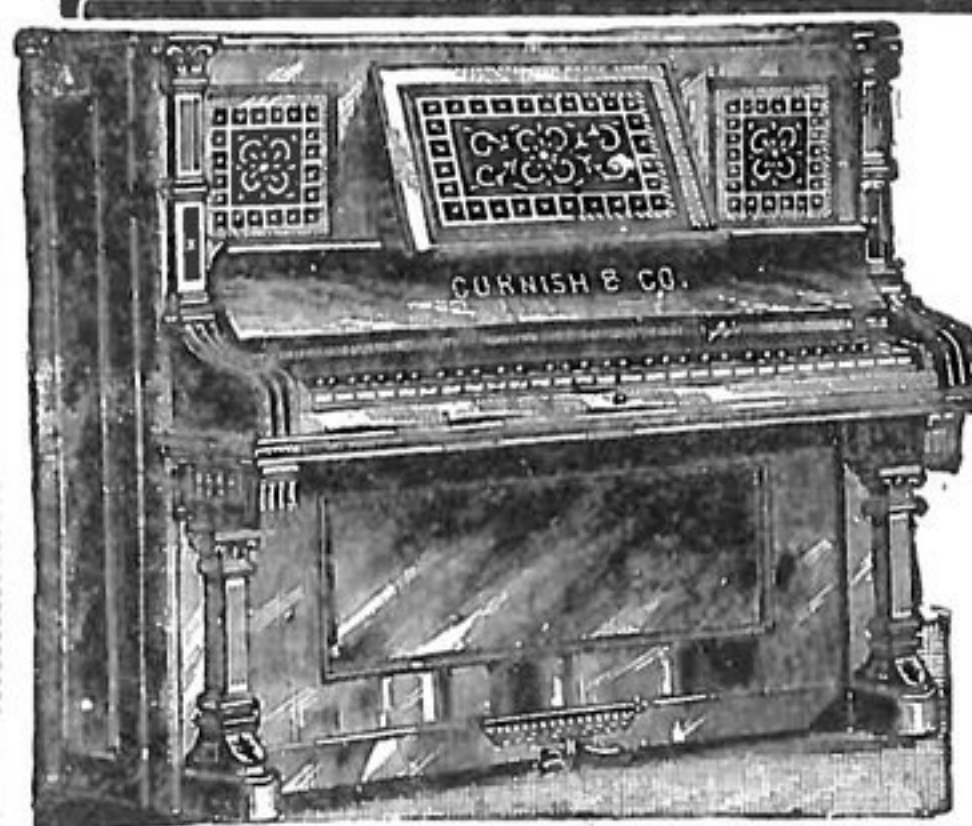
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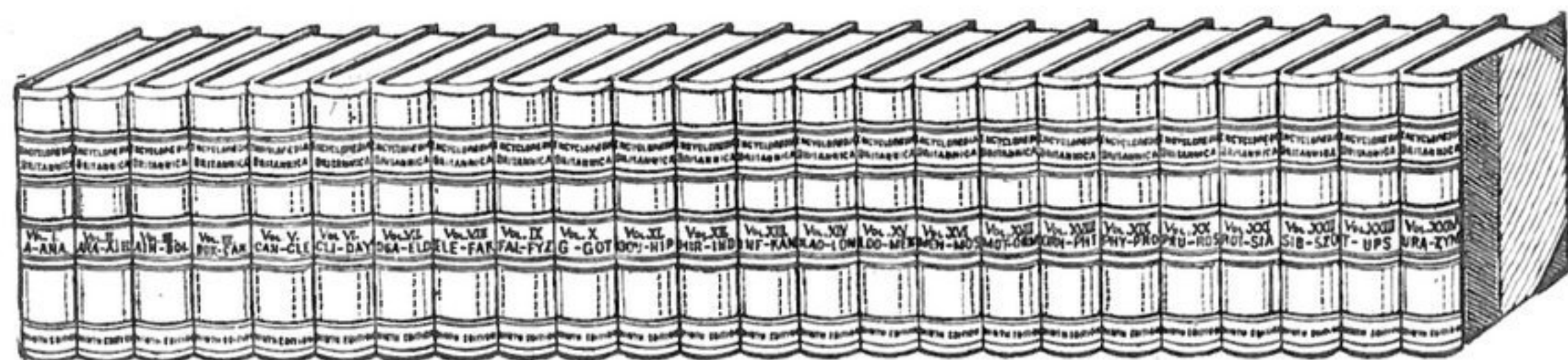
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A. S. BURBANK, Pilgrim Bookstore, Plymouth, Mass.

Practical Notes

SCALE IS EXPENSIVE.—It is estimated that the presence of 1-16 inch of scale causes a loss of 13 per cent. of fuel; $\frac{1}{8}$ inch of scale causes a loss of 38 per cent. of fuel; $\frac{1}{4}$ inch of scale causes a loss of 60 per cent. of fuel. The amount expended in consequence of loss of fuel and extra repairs on a locomotive in the Middle and Western states has been carefully estimated at about \$750 per annum, and for the same power in stationary boilers at about a similar amount. All this extra expenditure is due to incrustation.

GENERAL NOTES.

RECENT calculations of the population of the Chinese Empire by Russian authorities reckon it at 382,000,000, and the annual increase at 4,000,000. Not one in 10,000 ever heard of the religion of Jesus Christ.

SAYS one writer: "A whole literature of the subject has grown up and no less than 18 words have come into the language, probably temporarily, most of them, to denote the act or state of electric killing. They are as follows: Electromort, thanelectrize, thanatelectrize, thanatelectrisis, electrophone, electricise, electrotony, electrophony, electrotony electroctasy, electricide, electroponize, electrothenese, electroed, electrocution, fulmen, voltacuss and electrostrike." With modesty, we would ask what is the matter with "electroslug"?

SOMETHING ABOUT OIL-STONES.

Washita oil-stone rock is crystallized silica. The crystals are very small and are formed in clusters with the point ends interlaced, leaving numerous cavities. These minute crystals are hexagonal in shape with sharp points and may be seen under a microscope when magnified about 100 times. They are harder than steel. Washita whetstones are called oil-stones because oil must be used to fill the cavities and float away the steel particles that are cut off the tools. The peculiar geological formation from which these rocks are taken is not known to exist outside the State of Arkansas, where it occurs in many of the mountains of Saline, Hot Spring, Garland and Montgomery counties. These strata are in a vertical position varying from nearly perpendicular to nearly horizontal, and have been considerably broken by upheaval or folding of the earth's crust. There are many grades in the quality of this rock, from very hard and vitreous flint to the softest whetstone grit. Nearly all of it is very hard and vitreous or contains some impurity. One grade, of a dull white color, full of cracks and having but little grit, called bastard-stone, is plentiful throughout this formation, but is not used for whetstones. Some of the Washita rock quarried is not uniform in its texture, but contains hard spots and soft streaks that make uneven grit in the whetstones. Sound

blocks, composed of perfect crystals, uniform in hardness, and having sharp grit, are found in only a few quarters in Garland county, near the city of Hot Springs. The different grades of Washita rock that are used for whetstones weigh from 125 to 165 pounds per cubic foot. The best grades for good oil-stones weigh from 135 to 145 pounds per cubic foot. The hardness and weight and the sharpness of the grit in any Washita oil-stone depend entirely upon the character of its crystallization, and no fine polish or nice finish on the surface, no fancy name, will change the grit. Nature made and arranged these crystals mysteriously. The oil-stone manufacturer only cuts the rocks into whetstone shapes and sizes, nothing more. The softest Washita rock contains many grains of sand among the crystals. This quality has sharp grit but slight cohesion, so that the crystals separate readily and the stones wear away too fast. Such whetstones contain many sand holes. The lightest-weight rock that has perfect and uniform crystallizations without any grains of sand is the best quality to sharpen all wood-workers' tools, and it makes the most durable oil-stones. The light-weight whetstones generally have the sharpest grit, because they are the most porous. In them the crystals are interlaced in such a manner as to leave many cavities, and each cavity presents a great number of crystal points. The hard and heavy rocks are not sufficiently porous, being too compact. In them many of the crystals interpenetrate each other in a manner that leaves less cavities and fewer crystal points.

COTEMPORARY COMMENT.

If the intelligent English farmer, with his improved machinery and advanced methods, can not compete, in a market not a hundred miles away, with the American farmer, who is several thousand miles from that market, how is the heavily-taxed, ignorant Russian farmer, a thousand miles away, with his antique machinery (if he has any), ancient methods and wretched shipping facilities, to do it? America is constantly making more advancement in the production, harvesting and handling of grain than all other countries put together. Her millers are more progressive than those of any other country, and are continually devising new machines and methods for the cheaper and more economical manufacture of flour. In both these lines America leads, Russia follows at a distance.—Chicago "American Elevator and Grain Trade."

CATARRH.

CATARRHAL DEAFNESS—HAY FEVER.

A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King street, Toronto, Canada.—*Christian Advocate.*

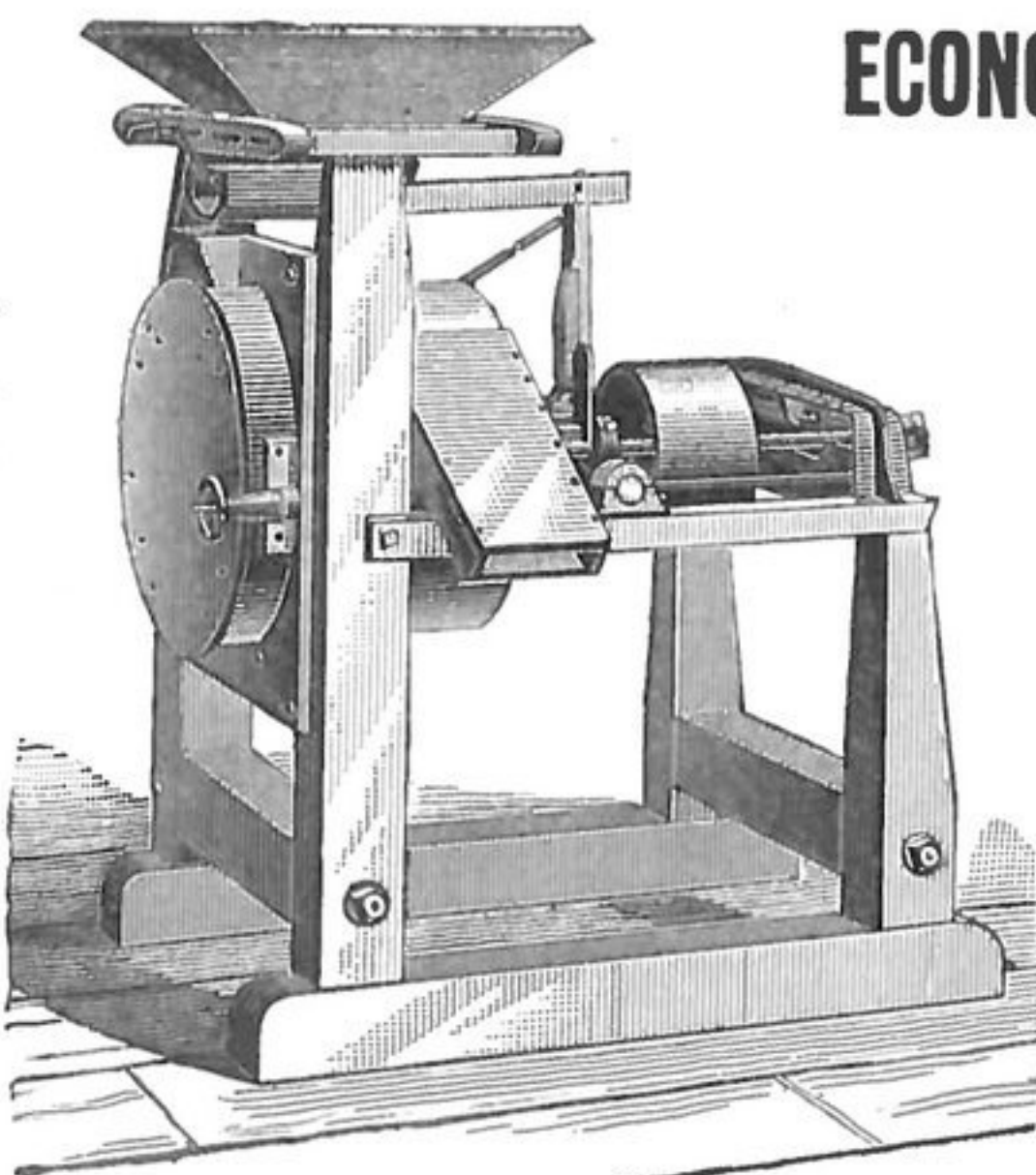
Sufferers from Catarrhal troubles should carefully read the above.

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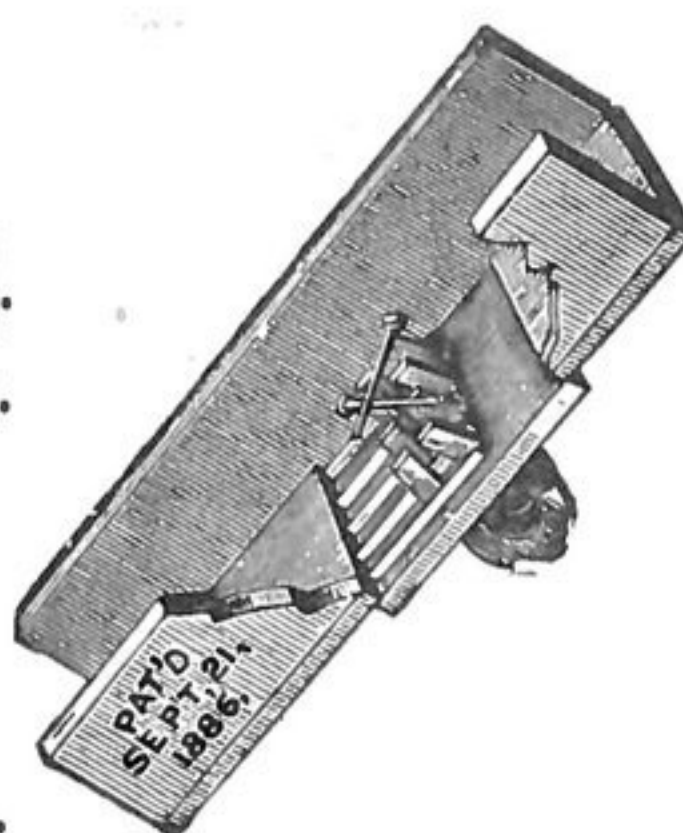


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A WONDERFUL LEATHER PRESERVATIVE, suitable for Leather, Rubber, Cotton or Rawhide Belting. Belts dressed with this dressing will last twice as long and transmit 100 per cent. more power. Save your Belting and prevent heating of journals by running them under a reduced tension. Sold on approval to responsible parties. SEND FOR CIRCULARS.

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GUM-ELASTIC ROOFING FELT costs only \$2.00 per 100 square feet. Makes a good roof for years, and anyone can put it on. Send stamp for sample and full particulars.

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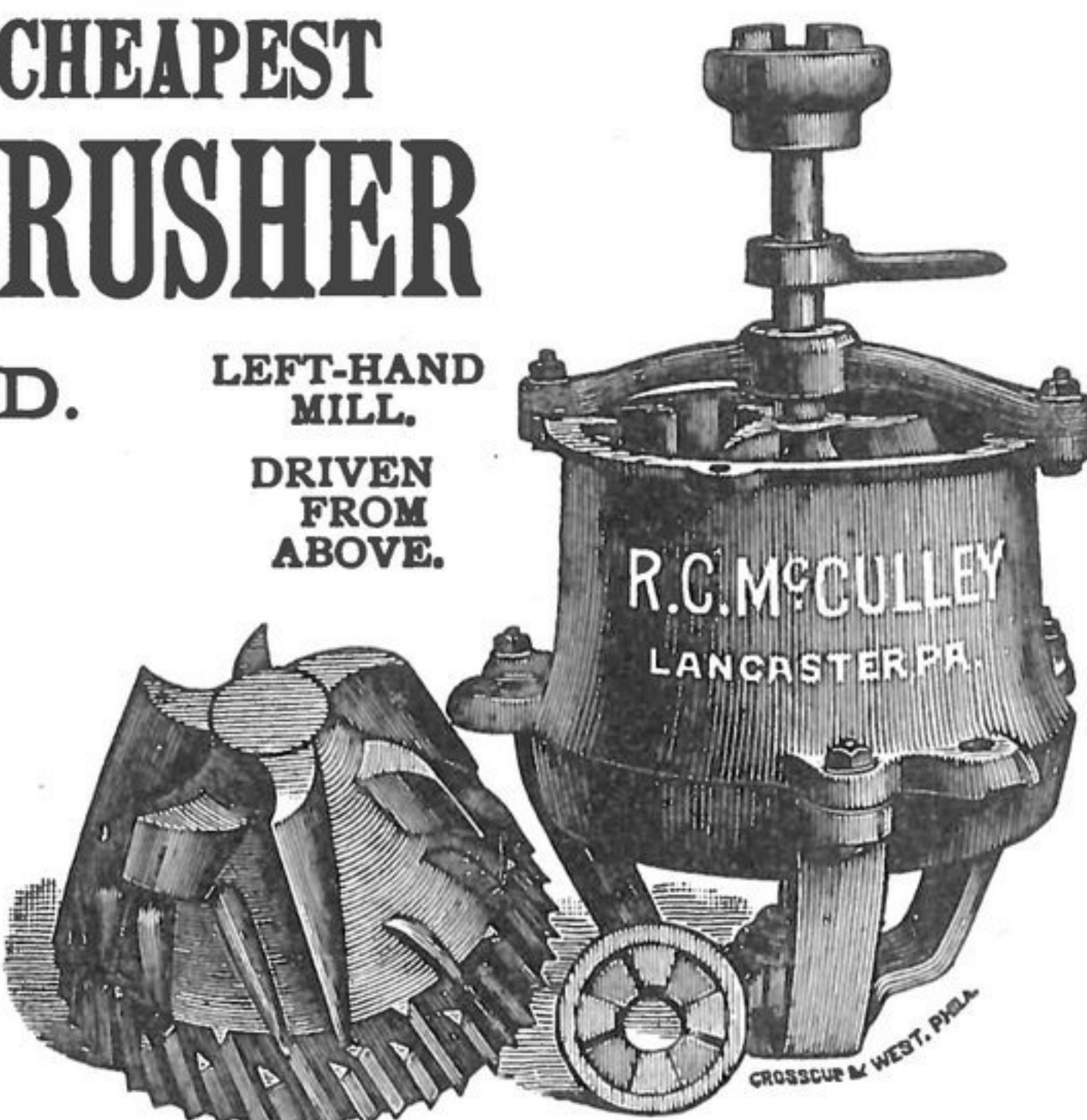
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All wearing parts cast of a steel mixture. Notice difference in construction. Most area where most work is done, where all other crushers have least area where most work is done. Low priced machinery is not the cheapest, considering durability and efficiency. Sent on 30 days' trial when satisfactory reference is furnished.

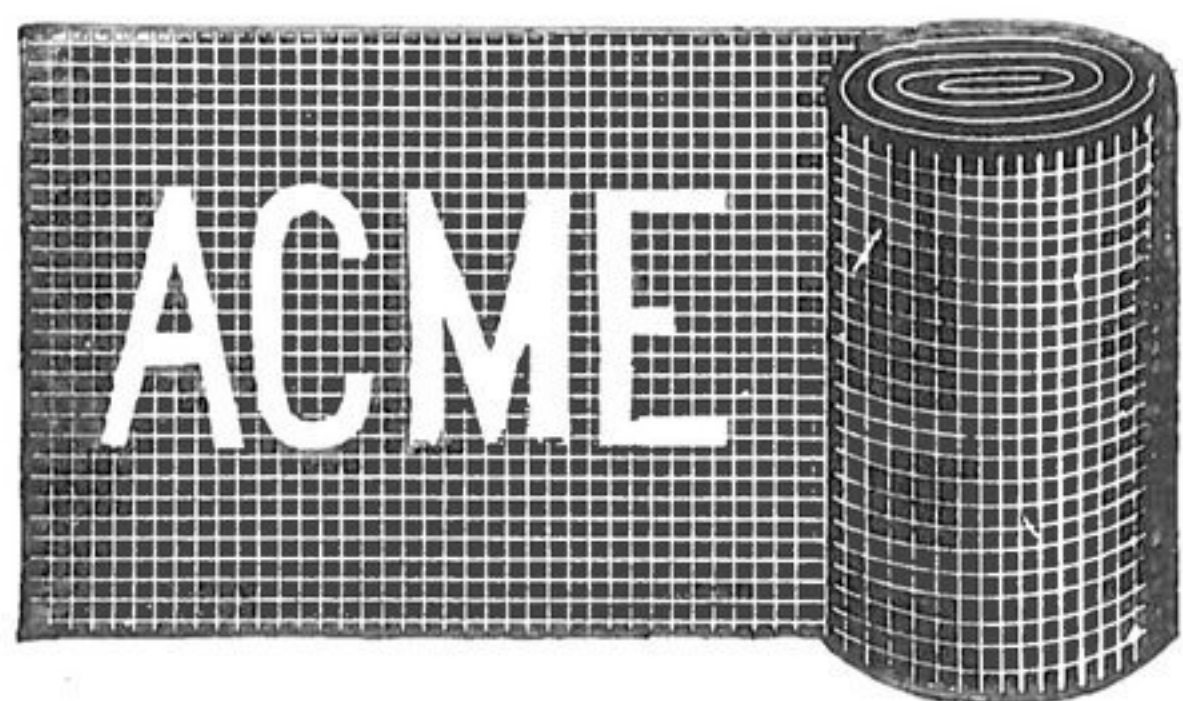
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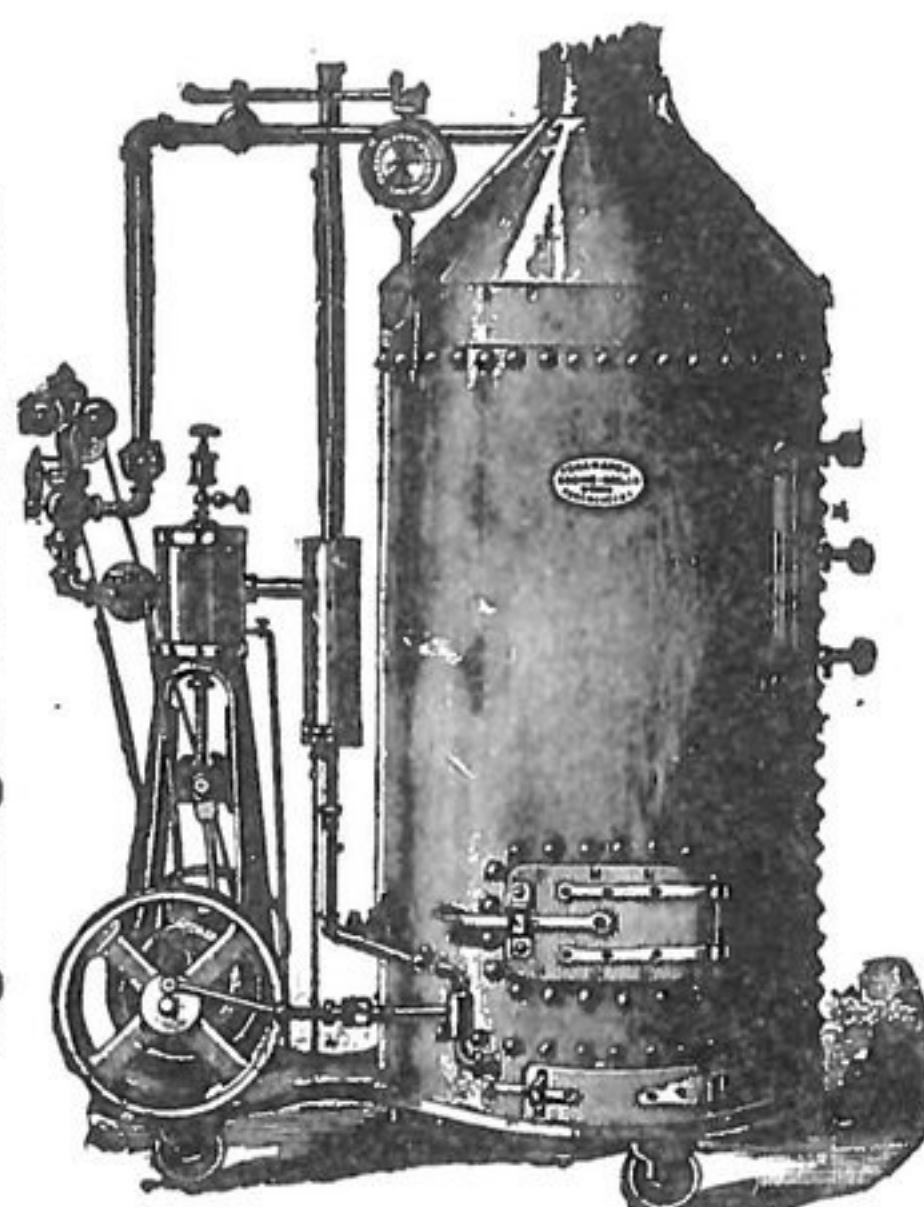
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TONAWANDA ENGINE AND BOILER WORKS

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The Best 6-Horse Power Semi-Portable Upright Engine and Boiler Made.



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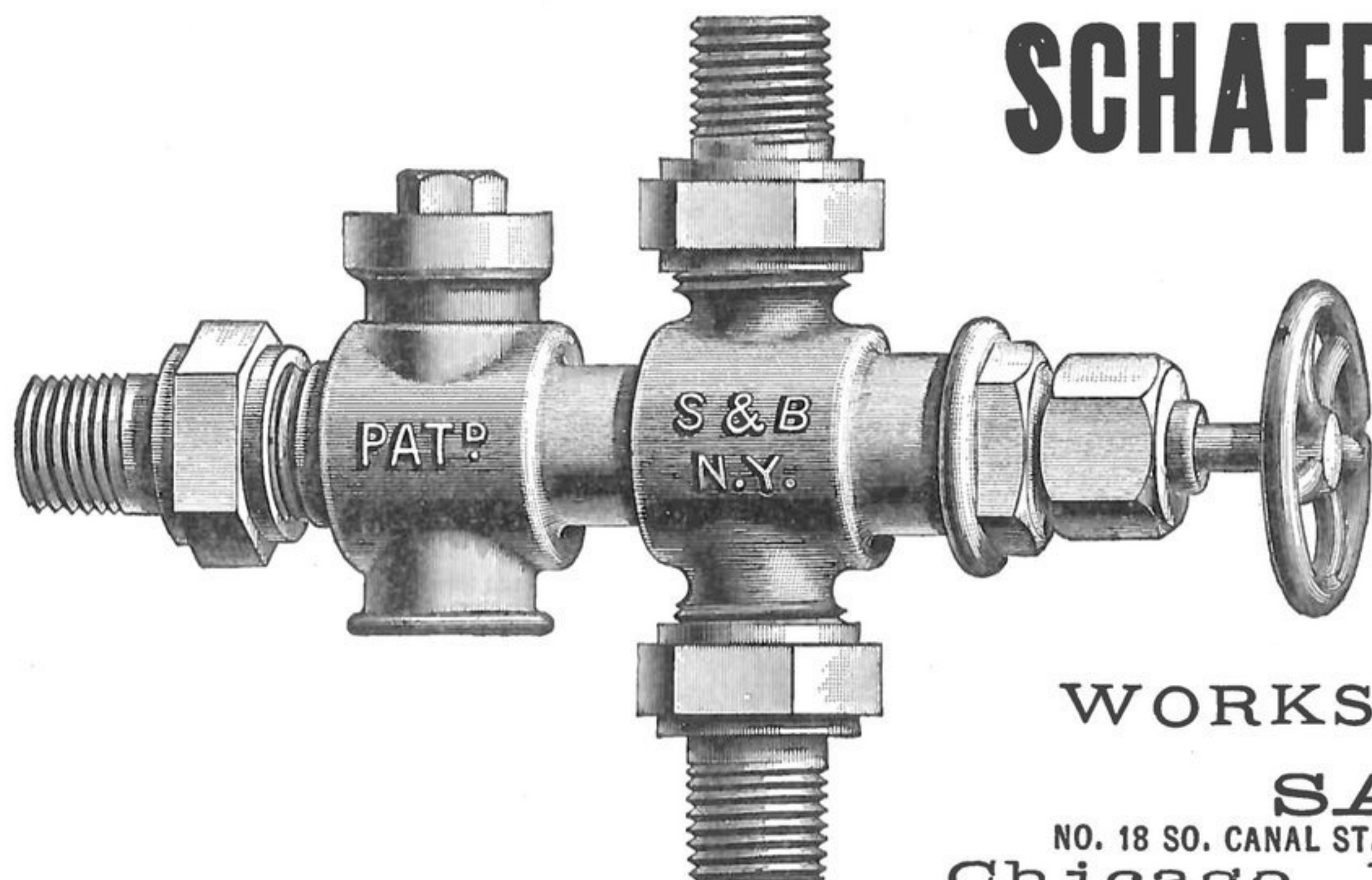
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Pressure Gauges for all Purposes

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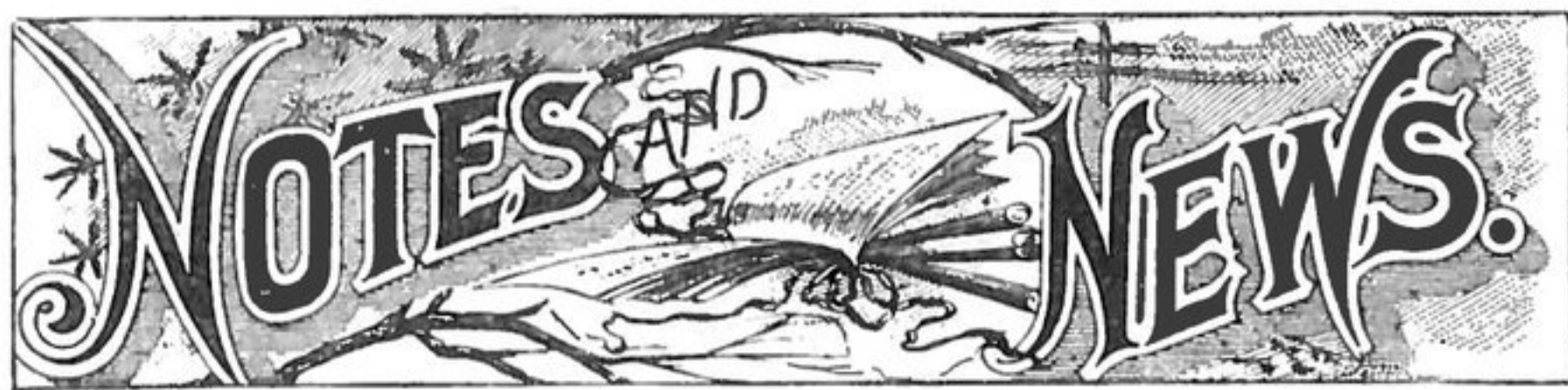
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NO. 18 SO. CANAL ST.,
Chicago, Ill.

NO. 40 JOHN STREET,
New York.



The Petersburg, Ky., Milling Co. attached.

G. W. Hodges, Ashville, Ala., improved grist-mill.

Lepper & Schlaefer, millers, Menomonee Falls, Wis., dissolved.

Mc Nulty & Ellery, millers, Eureka, Cal., dissolved, Mc Nulty Bros. continuing.

Chenault, Burnham & Co.'s roller flouring-mill, Richmond, Ky., burned; loss \$43,000.

J. E. Barwick, Wildwood, Fla., wants a machinery outfit for a new grist-mill.

The Globe Elevator, leased by Le Grand Smith, Chicago, Ill., burned; loss \$40,000.

Wm. Breedlove's grist-mill, near Gainesville, Tex., burned; loss \$5,000; insurance light.

The Staunton Steam Roller Mill Co., Staunton, Va., want a machinery outfit for a 200-barrel roller flour-mill.

The French Microscopical Society has calculated that there are 625,000,000 parasites to the square inch of smut in corn.

Shendun, Va., men form the Shendun Roller Mill & Elevator Co., capital stock \$35,000 to build a roller flour-mill and a grain-elevator.

The Southern Indian Millers' Association will hold a meeting in Evansville, Ind., on Tuesday, December 16th, when important matters will be considered. A large attendance is expected.

The following announcement was made from Saginaw, Mich., November 10th, and published in the *Chicago Timberman*: "Mr. Charles H. Plummer, of this city, has filed a declaration of a suit in the office of the clerk of Jackson county against W. D. Thompson for \$200,000 damages, which Mr. Plummer claims in his suit were for 4,000 shares of stock of the George T. Smith Middlings Purifier Company, which shares, Mr. Plummer claims further, were obtained from George T. Smith by Mr. Thompson under certain promises which have never been fulfilled. He claims further in his suit that the 4,000 shares were the ones that wrecked the company. The summons is returnable December 2d, and Tarsney & Weadock are Mr. Plummer's attorneys."

Says the Jackson, Mich., *Patriot*, under the heading "The Purifier Trouble": As we stated in a former issue, Messrs. Plummer and Smith and a syndicate of capitalists made an offer of \$50,000 for the Purifier property and further agreed to bind themselves to erect 100 houses within a year and employ all the men needed to run the business at its full capacity. Mr. Emerson in an open letter through the *Patriot*, states that the property would be worth more than \$50,000 if the cloud now resting upon the title by the claims of G. T. Smith and Mr. Plummer would be removed, and they propose to sell the property at public auction, only requiring the gentlemen to agree to remove the cloud, or in other words, relinquish their claims without offering any compensation. The receivers evidently think that in this way they can shift the responsibility of delaying the settlement of the Purifier estate on other shoulders. The people of Jackson have some rights, morally, in the matter, as a good share of the taxpayers' money is involved in the affair, and there are hundreds of workmen kept out of work who should and would be employed. The people are getting impatient and are right in demanding that the proposition of Mr. Plummer and others should be accepted, unless a better offer can be received.

Among the many orders lately received by T. C. Alcott & Son, Mount Holly, N. J., for their improved turbine water-wheel, are the following: Chapinville Wheel Works, Chapinville, N. Y.; John Rich & Co., Woolrich, Pa.; Nance & Smith, Greensboro, N. C.; Adams Lumber Company, Adams, N. Y.; Joseph W. Taylor, Englishtown, N. J.; J. E. Fricke,

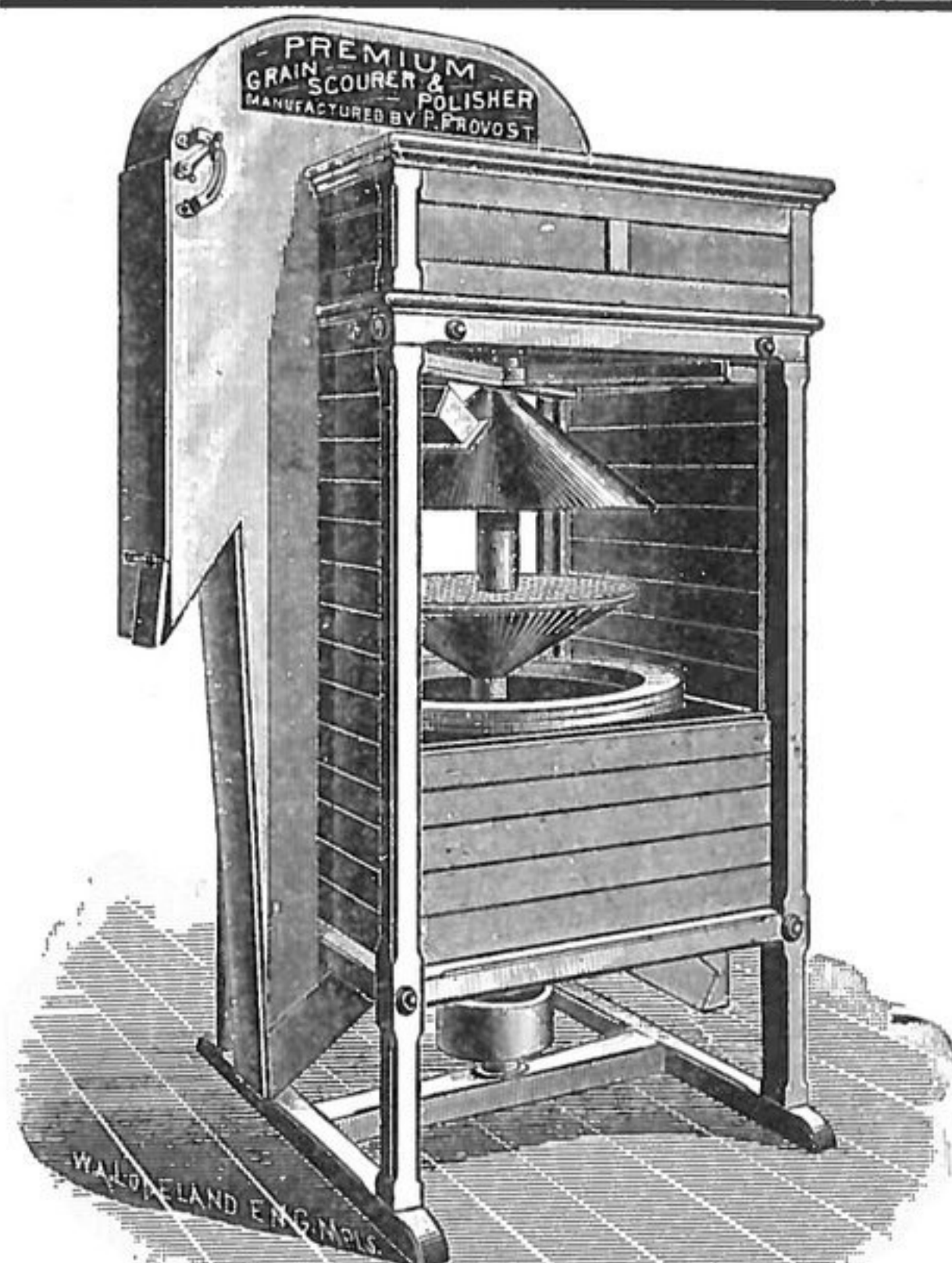
Hulmeville, Pa.; W. H. Woodhull, Pittsford, N. Y.; C. E. Wallace, Recklesstown, N. J.; Newton Lefevre, Fallsburgh, N. Y.; Crane Bros., Willow Grove, N. J.; Luling Water Works, Luling, Texas; Robt. Geiss, Sprenkle's Mills, Pa.; W. & L. Ward, Naugatuck, Conn.; M. E. Clearwater, Rhinebeck, N. Y.; Abel Bottom, Kirkwood, N. J.; Estate of Frank Githen, Eayrestown, N. J.; Whitmore & Binyon, London, Eng.; London & Rummell, New Milford, Conn.; H. B. Hopkinson, Northfield, Conn.; Red Bank Mills, Lexington (mounted on horizontal shaft); J. T. Crum & Son, Sandyville, W. Va.; North American Construction Company, Buchanan, Va. (1-48 inch wheel in case and necessary machinery for electric light plant); W. R. Wilkinson, Altenburg, Mo.; C. H. Phillips, Addison, N. Y.; I. A. Houck, Clarksville, N. Y.; E. D. Cairl, Colesburgh, Iowa; Giant's Causeway Electric Railway, Pott Rush, Ireland; James Roberts, Thomaston, Conn.; S. L. Williams, Home, Tenn.; W. A. Briggs, Claryville, N. Y.; I. M. Means & Co., Grafton, W. Va.

Concerning crops in North Dakota the past season a Grand Forks letter says: Crops over the length and breadth of the Red River Valley have been good. There have been no failures and every field has grown a paving crop, ranging from 12 to 28 bushels of wheat per acre, and proportionately for oats, barley and flax. While the crop is large, estimated at 35,000,000 bushels of wheat for the 12 counties in the valley, the quality has been reduced one grade by the heavy rains of September and October. Usually 85 per cent. of the wheat in this valley grades No. 1 Hard, but this year the bulk is of No. 1 Northern, a grade similar to No. 2 Winter at Chicago. The quantity of land plowed this fall for next year's crop is increased at least 5 per cent., and deliveries from farmers have been smaller than usual owing to the universal desire to plow as much land as possible before the final freeze-up. Still October receipts have taxed the railroads to the utmost to furnish cars, and elevators are already well filled. The advent of colder weather has stopped plowing, and wheat receipts have at once reached high water mark, being fully 400,000 bushels per day. The pressing problem is now to take care of this torrent of grain which threatens to swamp the carrying capacity of the railways. The Great Northern is now hauling from 250 to 400 cars of wheat per day, and the Northern Pacific about one-third that amount. This will probably be doubled for the next ten weeks if cars can be secured.

BOOKS AND PAMPHLETS.

The Thanksgiving number of *Good Housekeeping* comes to hand with the usual rich table of contents. All of the poetry has reference to the National Day, and so has much of the other matter, including an admirable Thanksgiving story. There is an interesting paper on "The Color of a Leaf," which gives an insight to the rich hues of our autumnal forests, with timely articles on "Amateur Entertainments," the preparation of pork as an article of food, and Christmas Gifts. Clark W. Bryan & Co., Springfield, Mass.

Among recent works of interest to flour-makers, none stands higher than "Modern Flour Milling," recently brought out by William R. Voller, mill manager of the "Albert Flour Mills," Gloucester, England. This is a compact volume of over 300 pages, containing an interesting compendium of modern milling, both theory and practice, especially as regards British milling practices. The chapters treat of the analysis of wheat, comparison of English and foreign wheats, handling and storage of grain, cleaning and its special difficulties, wheat mixing and mixtures, "conditioning" wheat for grinding, gradual-reduction milling, testing, bread-making and yields, all fully illustrated. The illustrations cover a full line of milling-machines. There are milling examinations, with questions, answers and illustrations, and numerous other subjects are treated entertainingly. The style is plain and unaffected, and the matter is mainly practical. We have made arrangements with Mr. Voller, by which we can furnish the volume to American millers for \$1.60, postage prepaid. We will furnish it with *THE MILLING WORLD* for a year for \$2.75. This is a good offer for our patrons. The book is a valuable one, and we cordially recommend it.



THE PREMIUM GRAIN SCOURER AND POLISHER.

This machine is guaranteed to do more and better scouring than any other machine in existence. Is easily set up, requires little or no care, except oiling.

Samples of Work Sent on Application

Address for full particulars,

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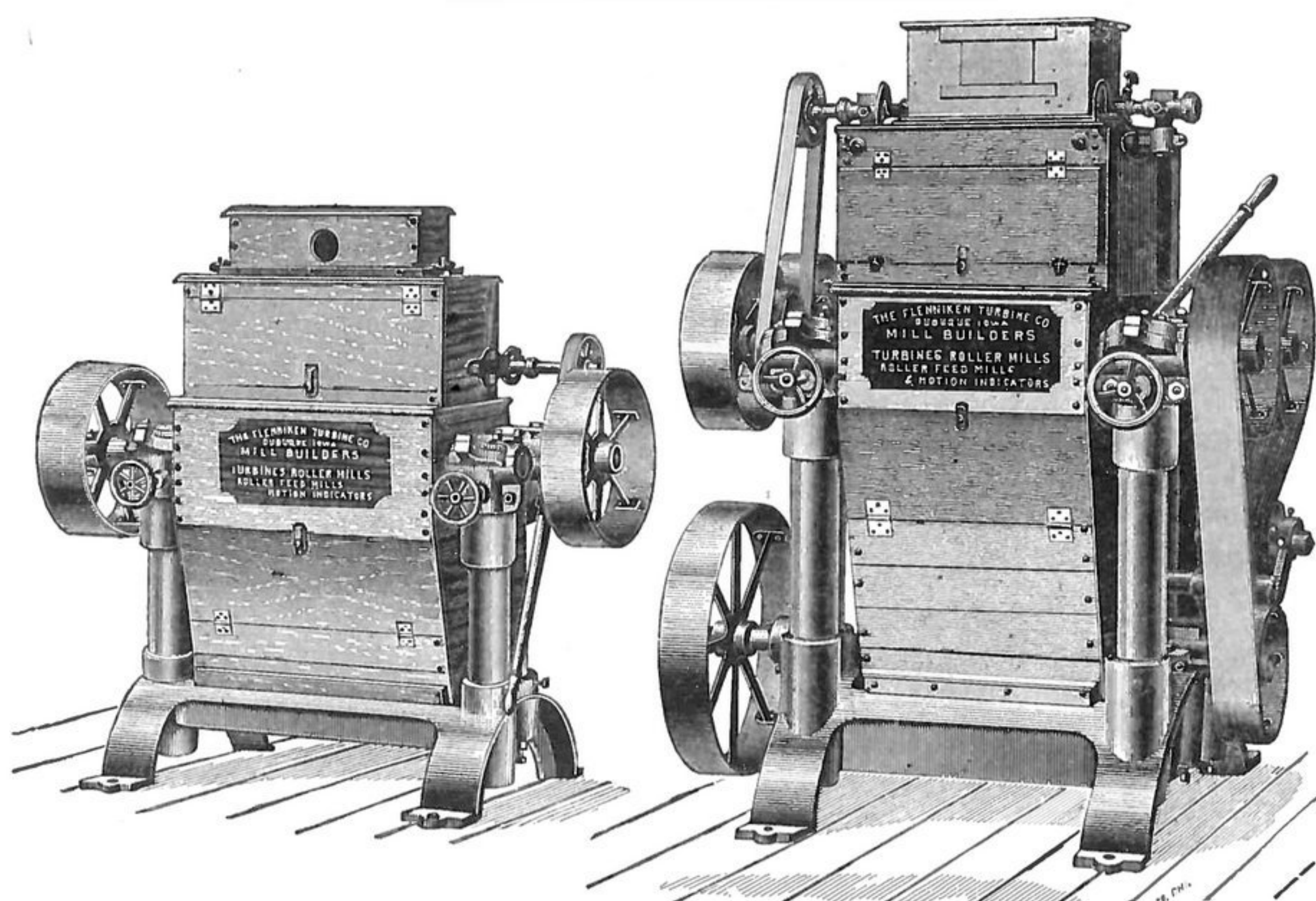
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ONE REDUCTION TO THE FRONT!

*Ye jolly millers, one and all,
Who granulate with burrs,*

A Moses has Come to Deliver You from Egypt. Cease Trying to Make Bricks without Straw. The Red Sea of Expense Has Been Divided.

The Wilderness of Reductions has Been Shortened. There is Manna in Abundance for Those Who Believe. Listen to the Glad Tidings of Great Joy!



ONE REDUCTION ON ROLLS IS A SUCCESS! Two years of experience in a dozen States, with all kinds of Wheat and diversified climates, has justified us in recommending its adoption in place of burrs in each and every case, whether for grinding Wheat, Rye or Buckwheat. We have perfected Roller Mills, Bolts and Scalpers peculiarly adapted to the wants of Small Mills, and all our machines *infringe no patents*, and no claims are made that they do.

Having consummated a bargain with **MR. O. C. RITTER**, the author and patentee of **One Reduction**, which gives us the *exclusive right* to construct mills under his patents, our patrons in the future will receive a license from Mr. Ritter.

SPECIALTIES!

Graham Roller Mills, Round Reels and Scalpers, Sectional Round Reels, Grain Separators, Motion Indicators. Before buying any of these machines send for our prices and descriptive circulars.

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Second-Hand Machinery, and Bargains in Every Line.

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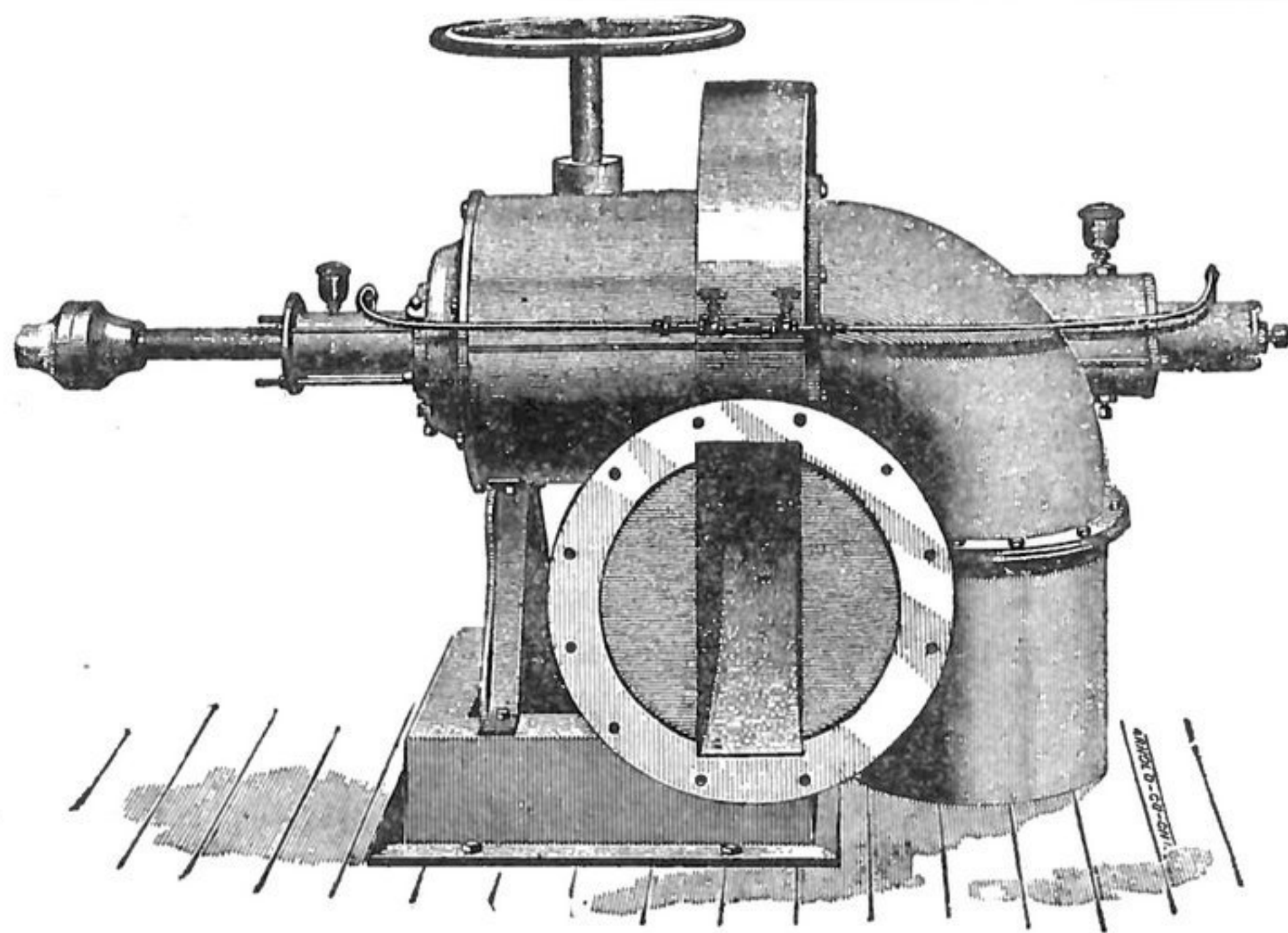
The Best Turbines!

VERTICAL OR HORIZONTAL,
With or Without Iron Flumes,

—BUILT BY THE—

Flenniken Turbine Co.

DUBUQUE, - IOWA.



EUROPEAN ECHOES.

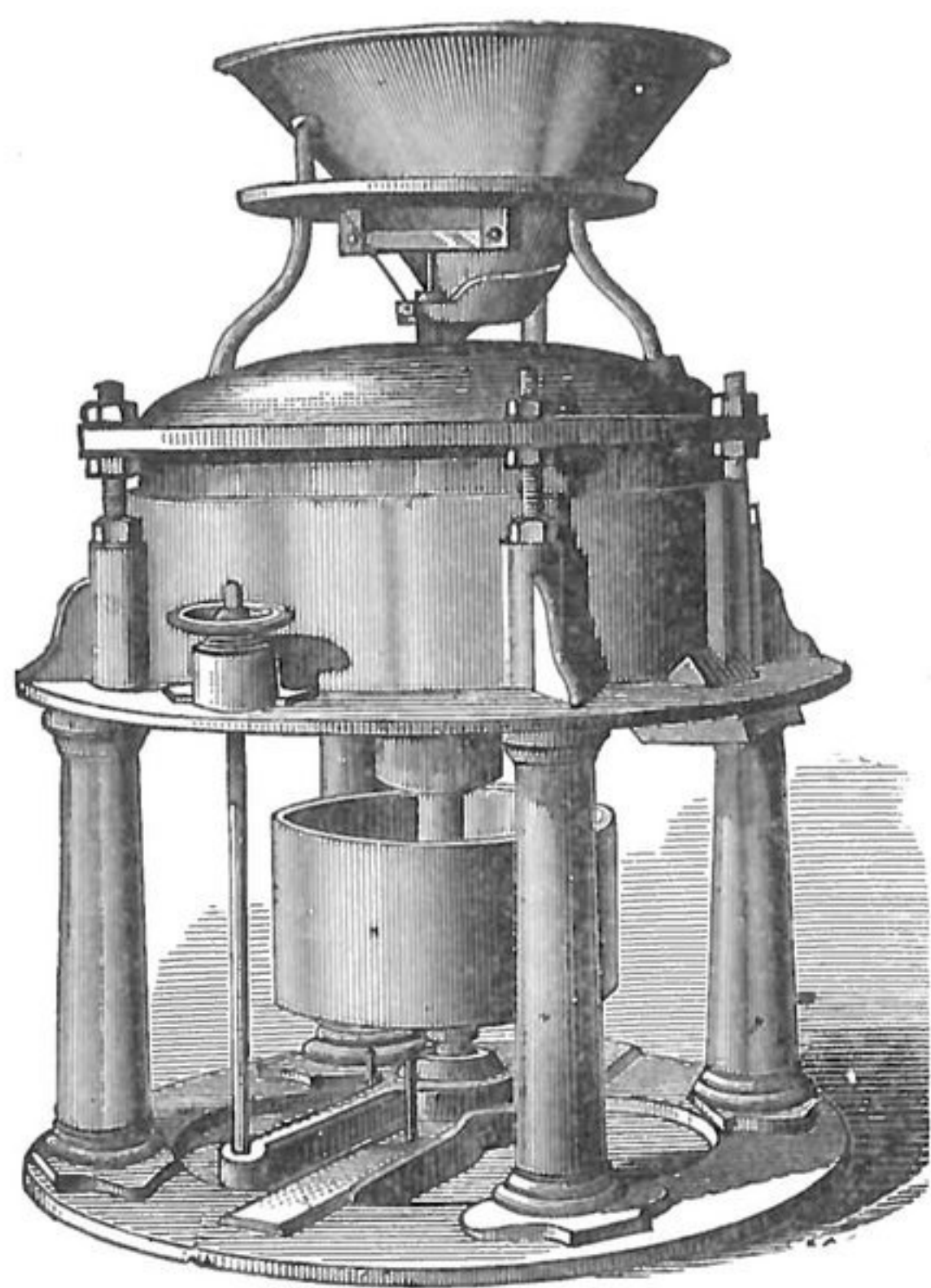
OFFICIAL reports from Italy estimate the area sown with wheat at 10,573,000 acres and a full average yield is 16,000,000 quarters. Italy's imports of wheat in the past three years were as follows: 1887, 4,663,000 quarters; 1888, 3,075,000 quarters; 1889, 4,010,000 quarters.

PROFESSOR William Jago has been focusing his chemical eyes on the reformed American tariff, finding it good, as he imagines, for the British miller. He writes in the "British Baker, Confectioner and Purveyor" as follows: "Simultaneously with this we hear for almost the first time of a surplus of wheat from the Canadian wheat-fields of the far Northwest. As the readers of this journal will remember, I some time back visited and inspected a good deal of this district; the area for wheat-raising is enormous and will more than suffice all our requirements for many, many years. With America shutting her wheat and flour out of our markets, Canada's opportunity should arise. Wheat of the Canadian Hard Fyfe type will be wanted and will receive a hearty welcome. The Canadian farmer ought to be able to produce it cheaper than his American competitor. The Canadian Pacific Railway provides ample means for its removal to the seaboard, from which the Allan and other lines of steamers can readily pour it into our granaries, taking back, let us hope, stores of Great Britain's manufactures. These are pleasant pictures. There is, however, one cloud in the horizon; things like the M'Kinley Act are too good to last." Professor Jago has evidently not heard of the lamentable condition of the Manitoba wheat of this crop, of the absolute inability of the Canadian Pacific to handle even a 12,000,000-bushel crop, of the fact that even the poor wheat in Manitoba now can not go out till next spring, of the fact that even the Manitobans think it best not to send their bleached and spoiled grain to England, and of the fact that England imports about 150,000,000 bushels of wheat yearly, while he says Canada's resources are sufficient for England's need for many years to come! Imagine the Dominion, which grows from 30,000,000 to 40,000,000 bushels of wheat, supplying England, which imports 150,000,000 bushels yearly, for many years to come! Evidently, a man may be a very competent chemist, and at the same time a very incompetent observer.

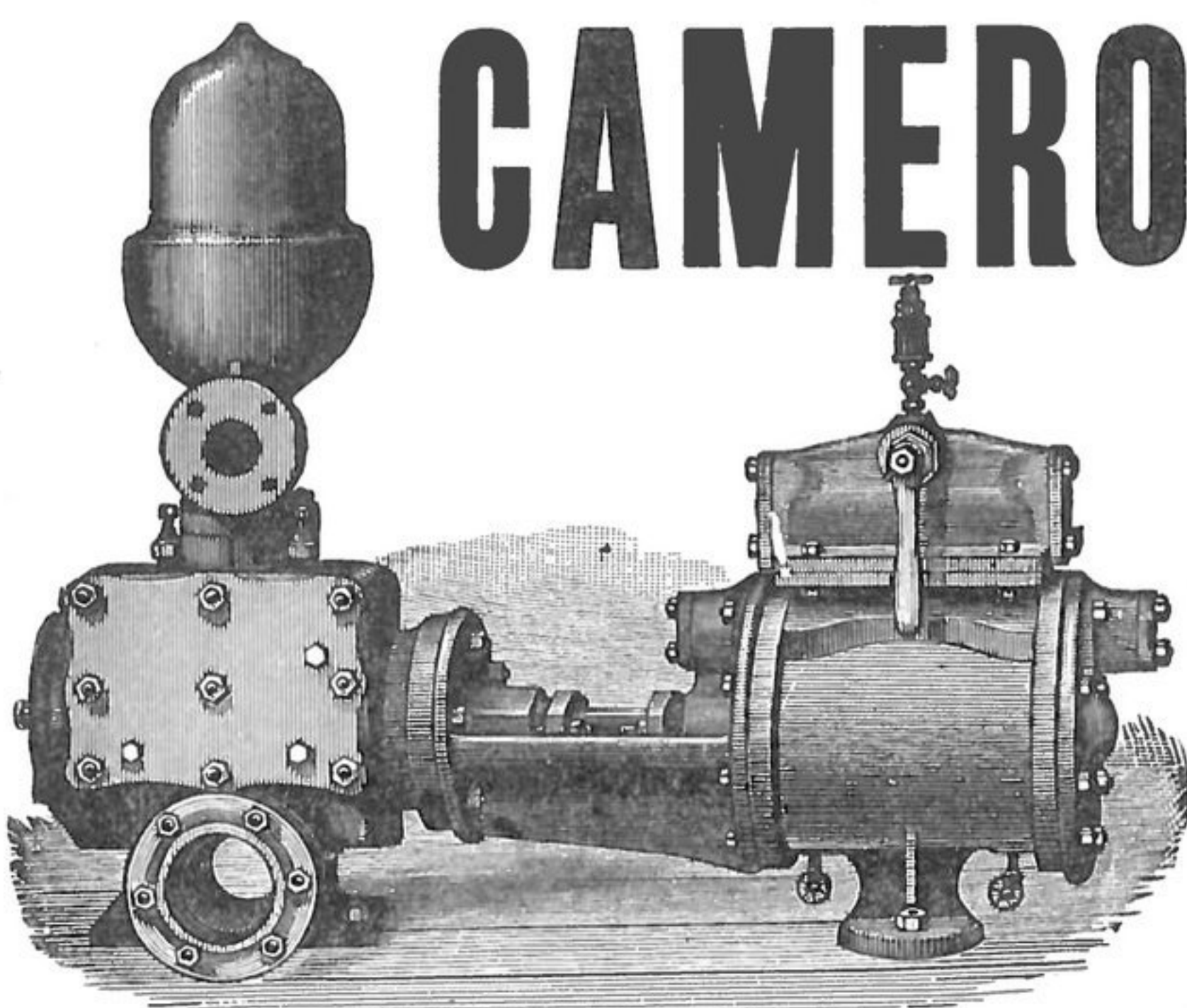
BRITISH millers are agitated over the whole-meal bread fad and the "Bread Reform League." One of them, Albert B. Tattersall, writes to the London "Millers' Gazette," denouncing the sophistries of the brown-bread faddists. Among other things he says: "In corroboration of Prof. Voit's statement, I give you the words of Prof. Graham, delivered so long ago as the Cantor Lectures of 1880. 'I think,' said he, 'no system of milling can be perfect unless the germ of the corn has been extracted, and for this reason, although the germ bears a comparatively small ratio to the total weight of the flour, still it is an important factor; it contains very active albuminoid ferments, and therefore injures the value of the flour for bread-baking purposes. The next point that occurs to me, as a chemist, that should be obtainable in any good system of milling is the thorough removal of the bran. I consider that no system of milling is perfect that does not fulfill these two conditions.' Prof. Jago, in a capital article entitled 'White Bread,' issued three years ago, champions the white flour in a manner I have never seen combated with effect. No wonder your correspondent should be astonished at medical men supporting so obvious a fallacy as is here arraigned; but when the president of the Birmingham and Midland Counties Branch of the British Medical Association should make such an assertion as quoted below, small surprise at the less eminent in the faculty tripping here. At their annual meeting, held a few weeks since in Birmingham, Mr. Alfred Freer, the newly-elected president, said in the course of his address, attacking the existing evils among young people, in considering the cause of bad teeth in the children of the present day, he attributed it neither

to taking food too hot nor too cold, nor to eating too much sugar, nor to smoking, but to the over-manipulation of wheat in milling, which eliminates the husk of the grain, namely, that portion of it which contains silica, the chief constituent of the outer coat of our teeth. 'The pigs,' he said 'now get man's portion,' at which his audience is reported to have applauded. I should like to know if Mr. Freer eats the oat husks, and the nutshells, and the orange peel, and the potato paring for the same reason he would eat bran. When I am confronted with the most solemn assurance of the ultimate triumph and re-instating of the sacred millstone to its former glorious position, I look back upon the heroic pioneers of modern milling with pious awe, and marvel at the vast amount of educational work they have got through in putting to flight the piled-up prejudices and traditions of ages. There are hundreds of small millers in the country who still cling to the ancient methods with the pertinacity of a 'Casabianca,' who stood on the burning deck 'when all but he had fled.' I believe they will wait till the timbers are cindered beneath their feet, regardless of the charms of the milling engineers, charm they never so wisely."

THE proposition to create a technical committee in the National Association of British and Irish Millers has been criticized by Bryan Corcoran, the London millstone builder, and Secretary H. J. Sanderson of the Association writes in reply in the London "Millers' Gazette" of November 3d: "In your issue of the 13th of October I notice a letter from Mr. Bryan Corcoran, bearing upon a suggestion made at the last meeting of the council of the above association. Mr. Corcoran is so well known and respected by members of the trade that his letter can not have failed to attract the attention of many of your subscribers, and I would therefore ask you to let me say a few words in reply to his somewhat sweeping condemnation of the idea (by no means a new one) of providing individual members of the association with the means of obtaining technical advice which, if not infallible, may at least have the merit of being disinterested. In the first place, the proposal which Mr. Corcoran attacks has not yet attained to definite form, and your readers may rest assured that every one of the objections pointed out by Mr. Corcoran would be raised and fully discussed in committee before being brought up for approval by the council. Secondly, I think Mr. Corcoran will allow upon consideration that, without presuming to dictate to any individual miller the course he should adopt in certain contingencies, the council of the association, through its representatives, may materially assist him in taking measures advantageous to his business, and that without incurring any very terrible responsibility in respect of the rival claims of competing engineers and manufacturers. Mr. Corcoran is, I am sure, perfectly well aware that questions are frequently asked by millers which carry one back to the early days of roller-milling, when matters which are now, by the large majority of the trade, looked upon as 'Ancient History' were still open questions, and when engineers were by no means at one as to their solution. In regard to such inquiries, information could be imparted to the advantage of inquirers without in the least involving the association in responsibility. While in the more delicate matter of forming a definite opinion upon the respective claims of rival machines, the association may be able to obtain for the inquiring member opportunities for investigation which would be out of his power to procure as an individual. It needs not a very great flight of imagination to picture the association in a position sufficiently powerful to undertake the establishment of a station where all descriptions of milling machinery may be thoroughly tested, not before a limited committee only, but before every member of the association who may desire to be present. Such an establishment would be of undoubted benefit to the milling trade, and it may soon be brought within reasonable distance if those members who now hold aloof from the association will only spare it their neglect, and after joining the ranks assist in strengthening its proceedings by criticism of as friendly a character as that contained in Mr. Corcoran's letter."



MUNSON BROS., UTICA, N. Y.,
—MANUFACTURERS OF—
PORTABLE MILLS
FOR CORN AND FEED GRINDING,
—WITH—
FRENCH BUHR and ESOPUS STONES
Shafting, Pulleys, Hangers, Etc., and General
Mill Furnishings.
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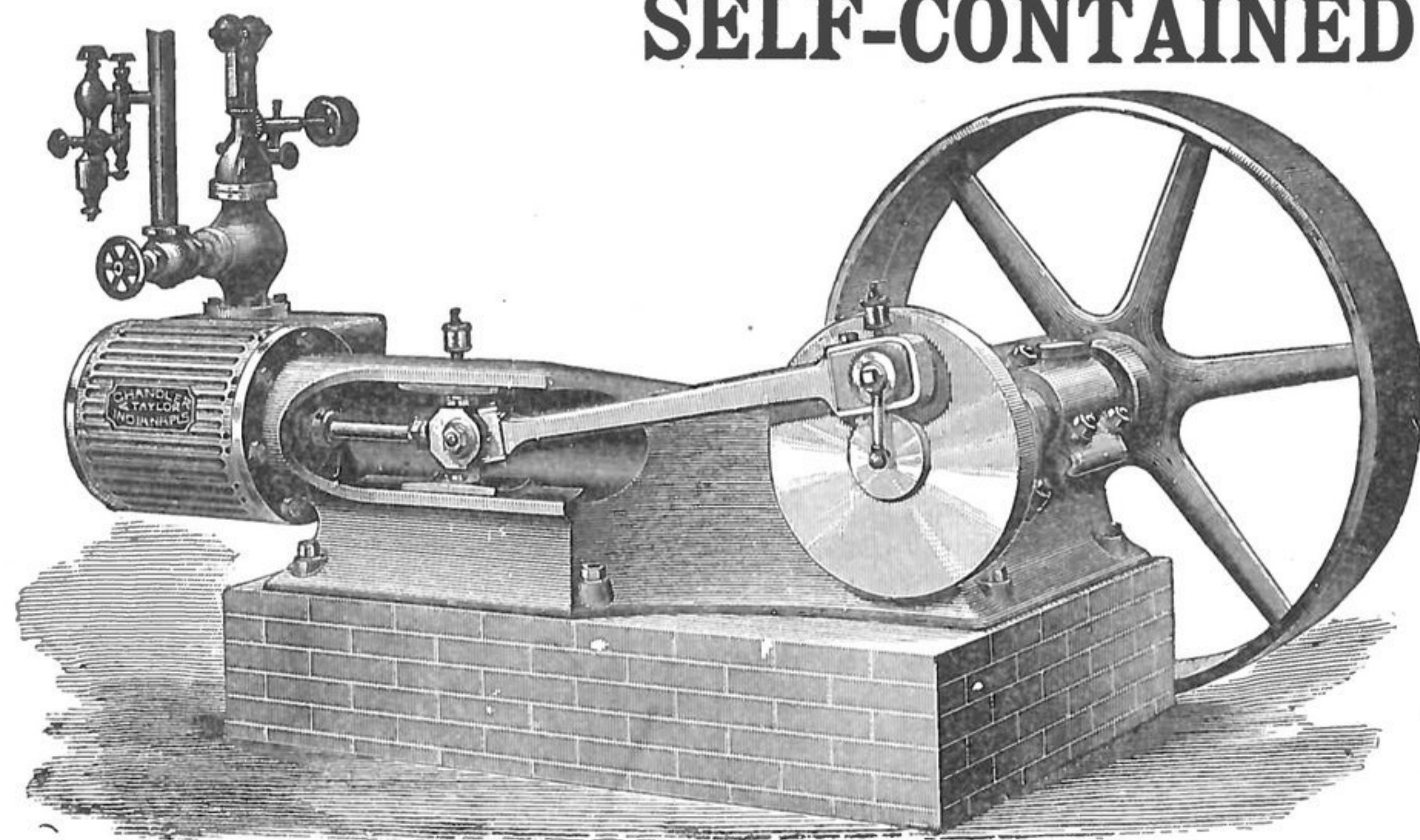
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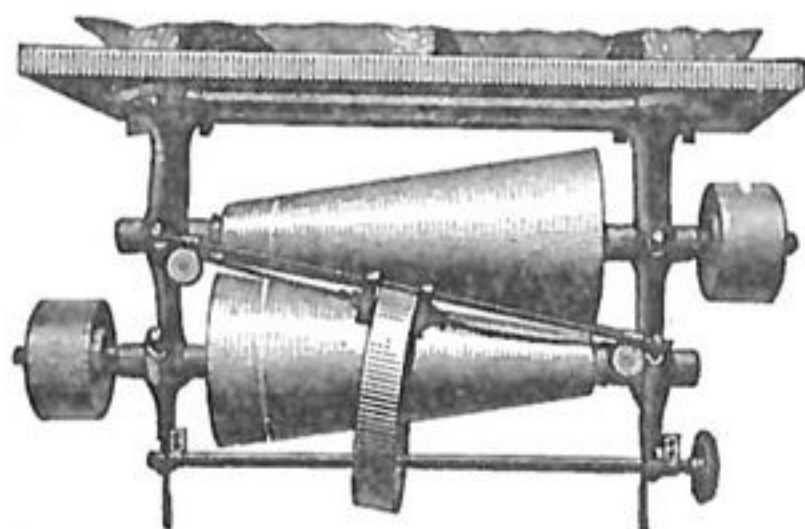
Chandler & Taylor Co.

Indianapolis, Ind.

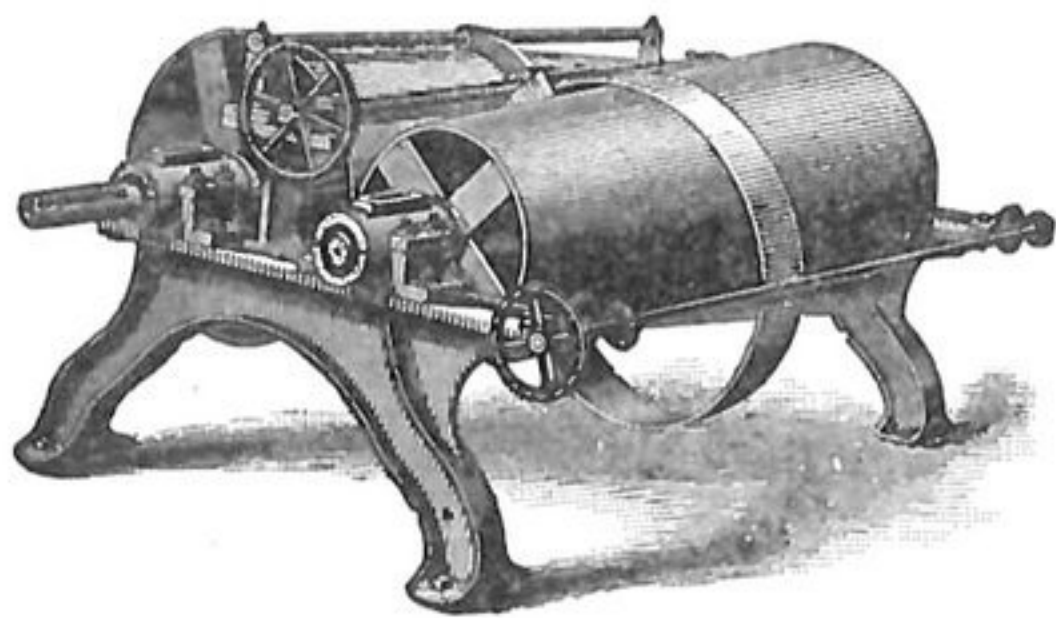
Engines, Saw-Mills and Drain Tile
Machinery a Specialty.

THE EVANS FRICTION CONE & FRICTIONAL GEARING

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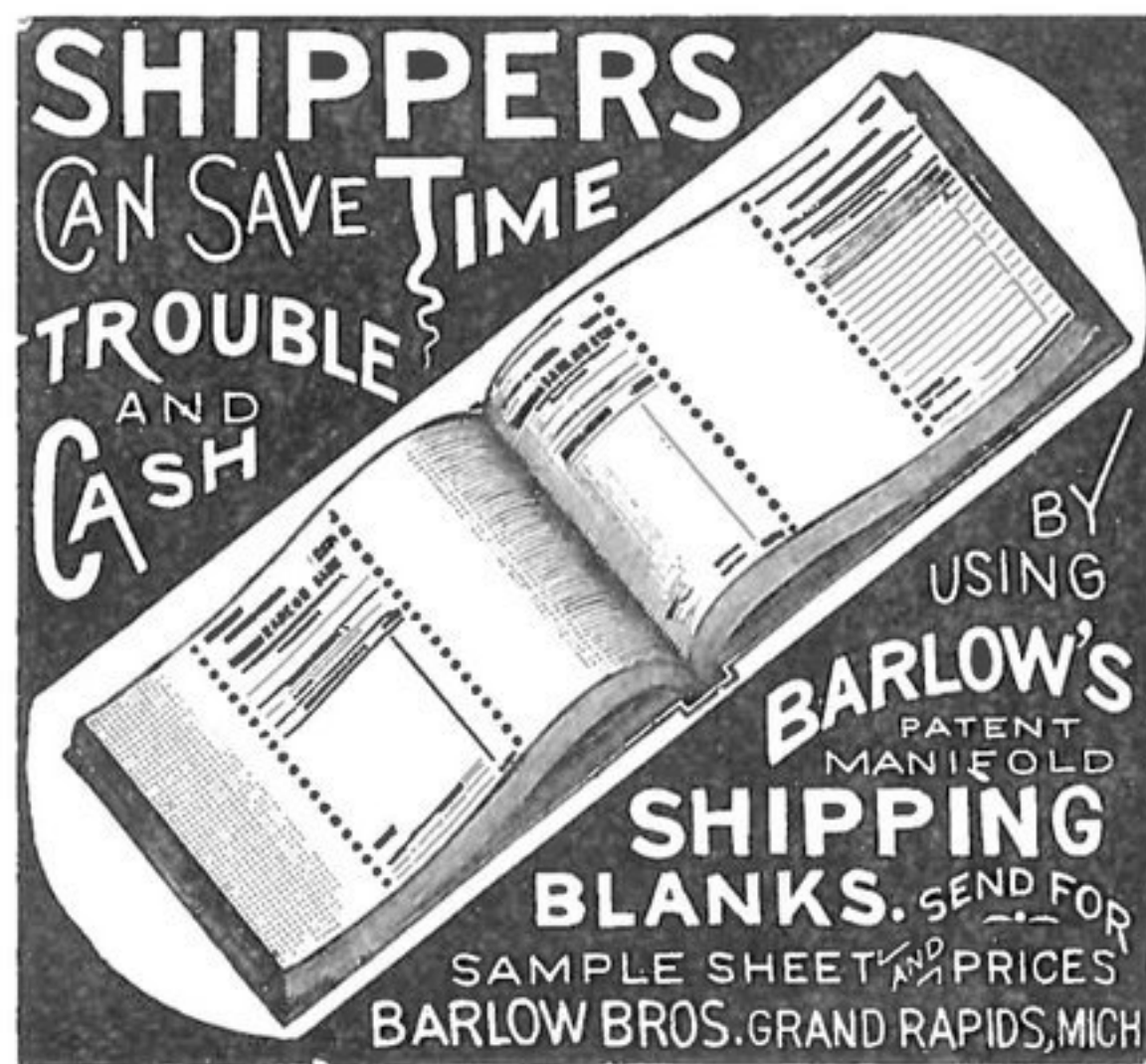


This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with a governor where a steady motion is required and the initial power is



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OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., Nov. 22, 1890.

Friday of last week brought the realization of the dream of the bears in the breaking of wheat prices below the dollar notch in New York. The markets were excited, active and lower generally, on continued long and general liquidation on spot and future stocks throughout the country, and on exceeding tightness of money in the West. In New York November wheat, which closed at \$1.02 on Thursday, sank to 99 $\frac{1}{2}$ ¢, and Atlantic port receipts were 38,225, exports 36,658, and options 10,536,000 bushels. November corn closed at 59 $\frac{1}{4}$ ¢, with receipts 90,198, exports 49,145, and options 2,656,000 bushels. November oats closed at 47 $\frac{1}{2}$ ¢, with receipts 104,370, exports 26,230, and options 325,000 bushels. Wheat flour was dull and weak, and generally lower by 10c. on all grades but New York city mills, grades of springs below \$3.25 and grades of winters below \$3.75. Receipts were 5,303 sacks and 25,523 barrels, and exports 11,251 sacks and 9,376 barrels. The fall since Monday was at least 25c. a barrel. All the minor lines were weaker and lower.

Saturday was a day of general weakness and demoralization, with lower and active markets, on great financial troubles in New York, London and elsewhere. The foreign exchange market was wildly demoralized, rendering export business practically impossible. Cereals broke still further. November wheat sagged to 98 $\frac{1}{2}$ ¢, at closing, and even the December option got below the dollar notch, closing at 99 $\frac{1}{2}$ ¢. Receipts were 94,807, exports 5,294, and options 8,750,000 bushels. November corn closed at 56 $\frac{1}{2}$ ¢, with receipts 150,382, exports 54,449, and options 1,880,000 bushels, mostly switching sales. November oats closed at 46c., with receipts 96,371, exports 15,771, and options nominal. Wheat flour was lifeless. Receipts were 6,521 sacks and 25,821 barrels, and exports 20,416 sacks and 14,974 barrels. The great financial crashes in London scared everybody out of the market for export business. Dealers, especially receivers from the West, said that bottom was reached, but buyers would not go "in it" on their assertions. All the minor lines were lower.

Monday brought an upward turn in the markets, all lines going higher, excited and more active on covering of shorts, better export demand and improved financial news. November wheat closed at \$1.00 $\frac{1}{2}$, with receipts 193,192, exports 60,636, and options 5,418,000 bushels. In spite of the break in American markets during the past week, foreign markets held comparatively firm, as advanced freights about equal the drop in wheat prices. Exporters are regretting that they did not lay in large stocks of wheat when it was down to 98c. It is again above the dollar-notch, and if the statistical situations means anything, it means that wheat will again gain all it lost during the past two weeks of financial excitement. November corn closed at 57 $\frac{1}{4}$ ¢, with receipts 184,856, exports 80,577, and options 1,220,000 bushels. November oats closed at 47c., with receipts 156,914, export 18,010, and options 330,000 bushels. Wheat flour was slightly improved, although buyers pretended to think that bottom had not been reached, while sellers steadily maintained that higher prices are inevitable. Receipts included 12,963 sacks and 40,104 barrels, and exports 7,604 sacks and 3,209 barrels. The minor lines were generally steadier and improved. The visible supply in the United States and Canada was:

	1890. Nov. 15.	1889. Nov. 16.	1888. Nov. 17.
Wheat.....	23,197,212	28,401,778	34,811,794
Corn.....	5,658,607	6,091,065	8,190,520
Oats.....	3,971,285	6,235,217	6,756,287
Rye.....	665,985	1,176,154	1,561,574
Barley.....	4,765,384	2,748,559	1,813,918

Tuesday brought generally demoralized cereal markets, low, active and excited, on tighter money and forced sales and liquidation. The difficulty in selling foreign exchange even at the sharp decline in commercial bills to \$4.72 @4.76 for 60 days, and the large increase in amount of wheat on passage aided to depress everything. November wheat closed at 98 $\frac{1}{2}$ ¢, with receipts 204,831, exports 2,725, and options nominal. November corn closed at 56 $\frac{1}{4}$ ¢, with receipts 157,483, exports 124,686, and options 1,220,000 bushels. November oats closed at 56c., with receipts 146,828 and exports 15,556 bushels. Wheat flour was weaker and lower to sell for all the list except city mills. Receipts were 5,205 sacks and 25,266 barrels, and exports 6,253 sacks and 10,634 barrels. The minor lines sympathized with the principal ones in weakness and stagnation.

The following shows the amount of wheat and flour, together with the amount of corn, on passage to United Kingdom, for ports of call or direct ports for the weeks mentioned:

	1890. Nov. 18.	1890. Nov. 11.	1889. Nov. 19.
Wh. & flour, qrs.	2,363,000	2,013,000	1,799,000
Corn, qrs.....	409,000	380,000	303,000

The following shows the amount of wheat and corn on passage to the Continent for the past week, the previous week, and for the same week last year:

	1890. Nov. 18.	1890. Nov. 11.	1889. Nov. 19.
Wheat, qrs....	702,000	666,000	468,000
Corn, qrs.	90,000	110,000	175,000

	Qrs.
India wheat to United Kingdom.....	65,000
India wheat to Continent.....	25,000

The imports into the United Kingdom for the past week and the previous week and for same week last year:

	1890. Nov. 18.	1890. Nov. 11.	1889. Nov. 19.
Wheat, qrs.....	230,000	146,000	283,000
Corn, qrs.....	127,000	117,000	205,000
Flour bbls.....	180,000	119,000	229,000

Wednesday was a day of mixed markets, active, excited and irregular, opening with a heavy break on large realizing, and recovering later on covering. Cables were weaker and lower, and the wheat supply east of the Rocky Mountains increased 2,000,000 bushels. There was renewed financial depression in New York and London. Offerings fell off late and the shorts began to cover. November wheat closed at 98 $\frac{1}{2}$ ¢, December at 98 $\frac{1}{2}$ ¢, January at \$1.00 $\frac{1}{2}$, February at \$1.02 $\frac{1}{2}$, March at \$1.03 $\frac{1}{4}$, and May at \$1.04. Receipts were 91,743, exports 29,872, and options 7,808,000 bushels. November corn closed at 56 $\frac{1}{2}$ ¢, and January at 58c., with receipts 164,330, exports 26,781, and options 1,840,000 bushels. The corn visible east of the Rockies increased 813,000 bushels. November oats closed at 45 $\frac{1}{4}$ ¢, and May at 49 $\frac{1}{4}$ ¢, with receipts 108,975, exports 18,635, and options 250,000 bushels. Buckwheat grain was nominally 56@58c. Rye grain was quoted at the following rates: Western 72@74c.; State 88@80c.; Canada 71@72 $\frac{1}{2}$ ¢. afloat full loads, and 69@73c. for car lots on track. Barley was not salable at old quotations, yet not pressed, and held awaiting bids. Quotations: No. 2 extra Canada 90@92c.; No. 1 95@97c.; No. 2 Milwaukee 79@80c.; Western nominal. Malt was in the same boat with barley, and nominal at old prices asked, without demand. Quotations: New Western 93@98c.; new country Canada \$1.03@1.13; new city do \$1.08@1.18, cash and time. Old—73@80 $\frac{1}{2}$ ¢. for two-rowed; 78@83c. for six-rowed, 83 $\frac{1}{2}$ @90c. for country-made Canada and 90 $\frac{1}{2}$ @98c. for city do. Mill-feed was very scarce and few mills in the market, with old prices bid, and 10c. more than quotations at the mills. Quotations: 40 and 60 lbs. \$1.05; 80 lbs. nominal; 100 lbs. \$1.20; rye \$1.05.

Wheat flour was weak, unsettled and irregular on all lines above fine springs and superfine winters. Grades below these were scarce and firm on winters, and steady on springs. Receipts included 7,499 sacks and 27,982 barrels, and exports 7,237 sacks and 10,629 barrels. Late sales included: Patent springs at \$5.35@5.40;

No. 1 springs sold at \$4.10 to the trade, while there were sellers of sacked No. 1 and bakers'; one car superfine winters in second-hand sacks at \$3.50; sacks superfine springs at \$3.22 for a choice flour; fancy spring straight \$5; sacks spring clear at \$3.90, spring superfine at \$3.10 in sack and sacks low ungraded spring at \$2.68. City mills were easier at \$5.15@5.25 for the West Indies. Car lots winter straights at \$4.75 @4.85; \$5 was bid for fancy winter patents and \$5.25 asked, but good ones could be bought at \$5, which was bid for lines of standard spring, which were not offered openly at less than \$5.25; spring superfine at \$3.30; Minnesota bakers' at \$4.10. Car lots of Ohio patents sold as low as \$4.90 for a good flour; choice Minneapolis patent late Tuesday at \$5.25.

Rye flour was dull at \$3.75@4.25. Buckwheat flour was steady and dull at \$2 10@2.20. Corn products were dull at the following quotations: Western and Southern in barrels \$3.05@3.25; Brandywine \$3.25; granulated yellow \$3.35@3.60; granulated white \$3.60@3.90; coarse bag meal \$1.06@1.10; fine yellow \$1.20 @1.25; fine white \$1.28@1.30 for city; Southern \$1.15@1.75 for coarse to granulated; brewers' meal \$1.37@1.40; hominy chops \$1.05@1.10.

Thursday brought no improvement, and rather a falling off, in market conditions. November wheat closed at 97 $\frac{1}{2}$ ¢, with receipts 73,800, spot sales 84,000, and options 4,000,000 bushels. November corn closed at 56 $\frac{1}{2}$ ¢, with receipts 180,000, exports 74,000, spot sales 92,000, and options 560,000 bushels. November oats closed at 46c., with receipts 31,000, spot sales 141,000, and options 160,000 bushels. Wheat flour was active and unsettled, with receipts 15,000, and sales 24,000 packages. Quotations were: Low extras \$3.40@3.85; city mills \$5.00@5.40; city mill patents \$5.00@5.75; winter wheat low grades \$3.40@3.85; fair to fancy \$3.90@5.10; patents \$4.35@5.40; Minnesota clear \$4.10@4.90; straight \$4.35@5.15; Minnesota straight patents \$4.75@5.50; rye mixtures \$3.90@4.50; superfine \$3.10@3.75. The Minneapolis mills ground 185,050, the largest weekly output on record but one, in 1888, when, for the week ending October 16, the output was 187,000 bushels. The Minneapolis mills are rushing work to ship before freight rates advance. The minor lines were weak.

BUFFALO MARKETS.

Buffalo, N. Y., November 22, 1890.

This market has ruled irregular during the week, with considerable fluctuations. Conditions are as follows: WHEAT—Scarcely anything was done. A sale of 8,000 bu No. 1 Northern at p. t. was reported, said to be 89 $\frac{1}{2}$ ¢. A car of No. 2 red was sold at 95c., but is held at 96c. in store. Some extra No. 2 white sold at 93c., and some Oregon white at 94 $\frac{1}{2}$ @95. CORN—Sales of No. 2 yellow were reported at 59@59 $\frac{1}{2}$ ¢, and these were at closing prices. No. 3 yellow sold at 58 $\frac{1}{2}$ @58 $\frac{3}{4}$ ¢; No. 2 corn at 56@56 $\frac{1}{2}$ ¢, closing at 56 $\frac{1}{2}$ @56 $\frac{3}{4}$ ¢. in store. Some No. 2 corn sold at 57c. OATS—The market was quiet at former prices, No. 2 white selling at 49@50c., according to weight; No. 3 do at 48@48 $\frac{1}{2}$ ¢, and No. 2 mixed at 57c. The market closed steady at these prices. BARLEY—Choice Michigan sells at 80@81c., fair to good at 76@79c., No. 2 Western at 75@76c., and No. 3 do at 70@74c. No Canada barley is offered to quotable extent. RYE—The market is nominally held at 73@74c. for No. 2, but none is offered. OATMEAL—Akron, \$7.20; Western, \$6.95 per bbl; rolled oats, in cases, 72 lbs, \$3.85. CORNMEAL—Coarse, \$1.15@1.20; fine, \$1.20@1.25; granulated \$1.75 per cwt. MILL-FEED—City-ground coarse winter, \$19.00@20.00 per ton; fine do. \$19.50; finished winter middlings \$22.00@23.00; coarse spring do, \$22.00.

FLOUR MARKET.

Spring Wheat.	Winter Wheat.
Patents..... \$6.25@6.50	Patents..... \$6.25@6.50
S't Bakers'... ..@5.75	S't roller... ..5.25@5.50
Bakers' cl'r... ..@5.25	Amber... ..5.00@5.25
B Rye mixt... ..@4.75	Crck'r flour... 5.00@5.25
Low Grades... ..@3.50	Low grades... 3.50@3.75
Rye flour... ..3.75@4.00	Graham..... 4.75@5.00
Buckwheat flour, \$2.75 per 100 pounds.	
Retail prices 50c. above these quotations.	

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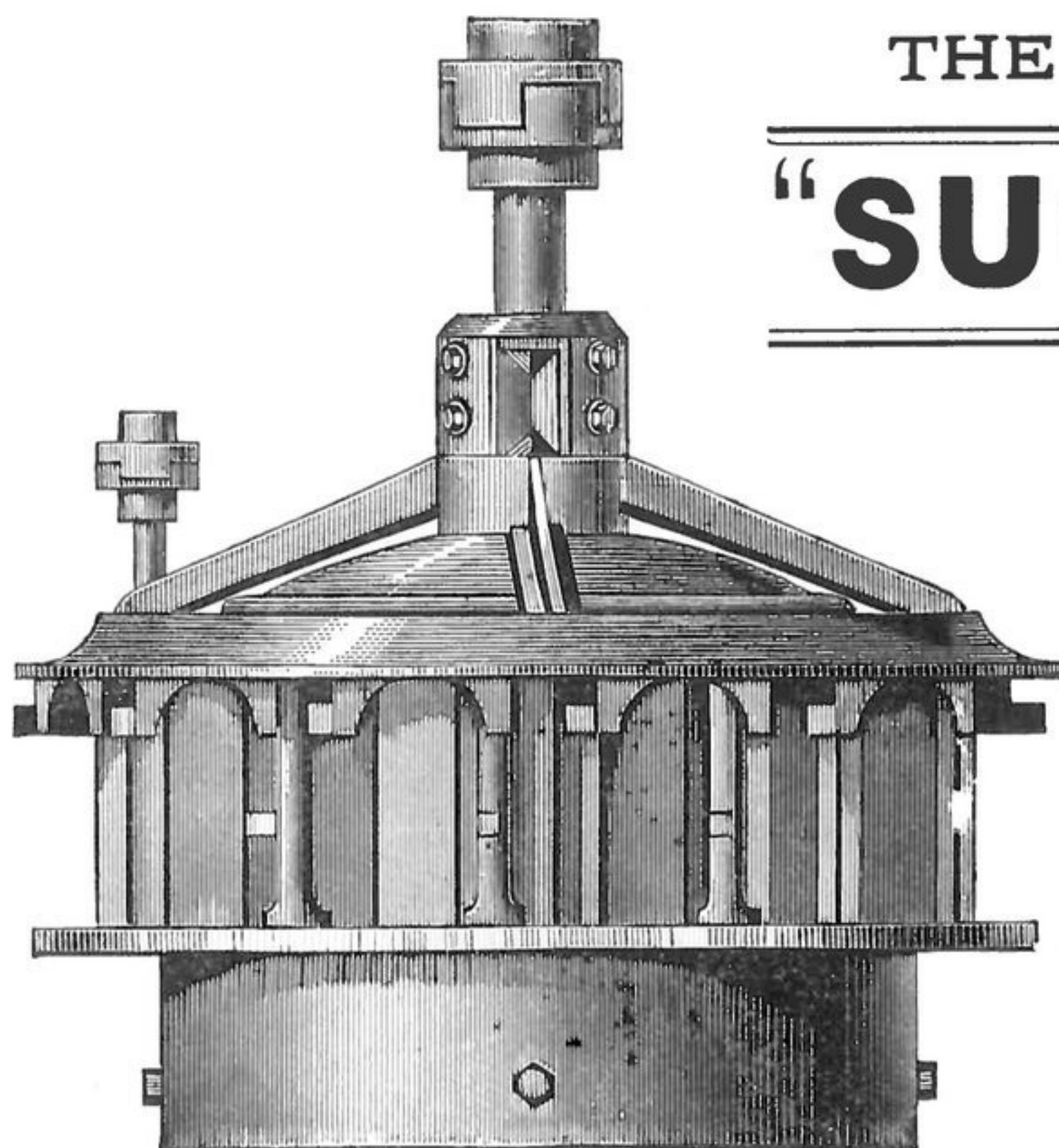
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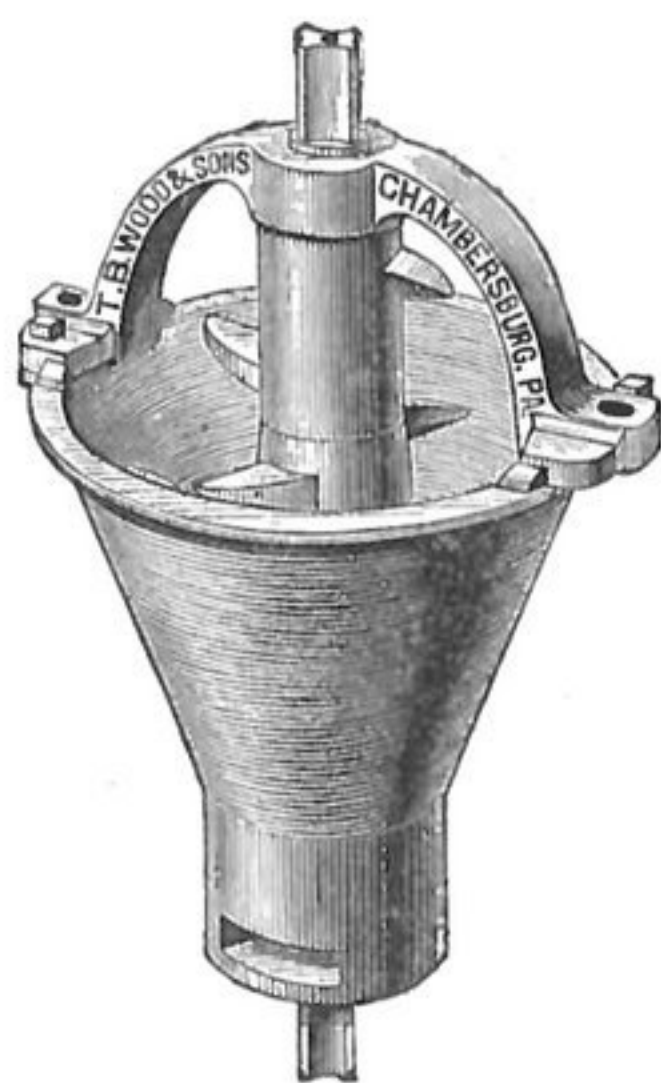
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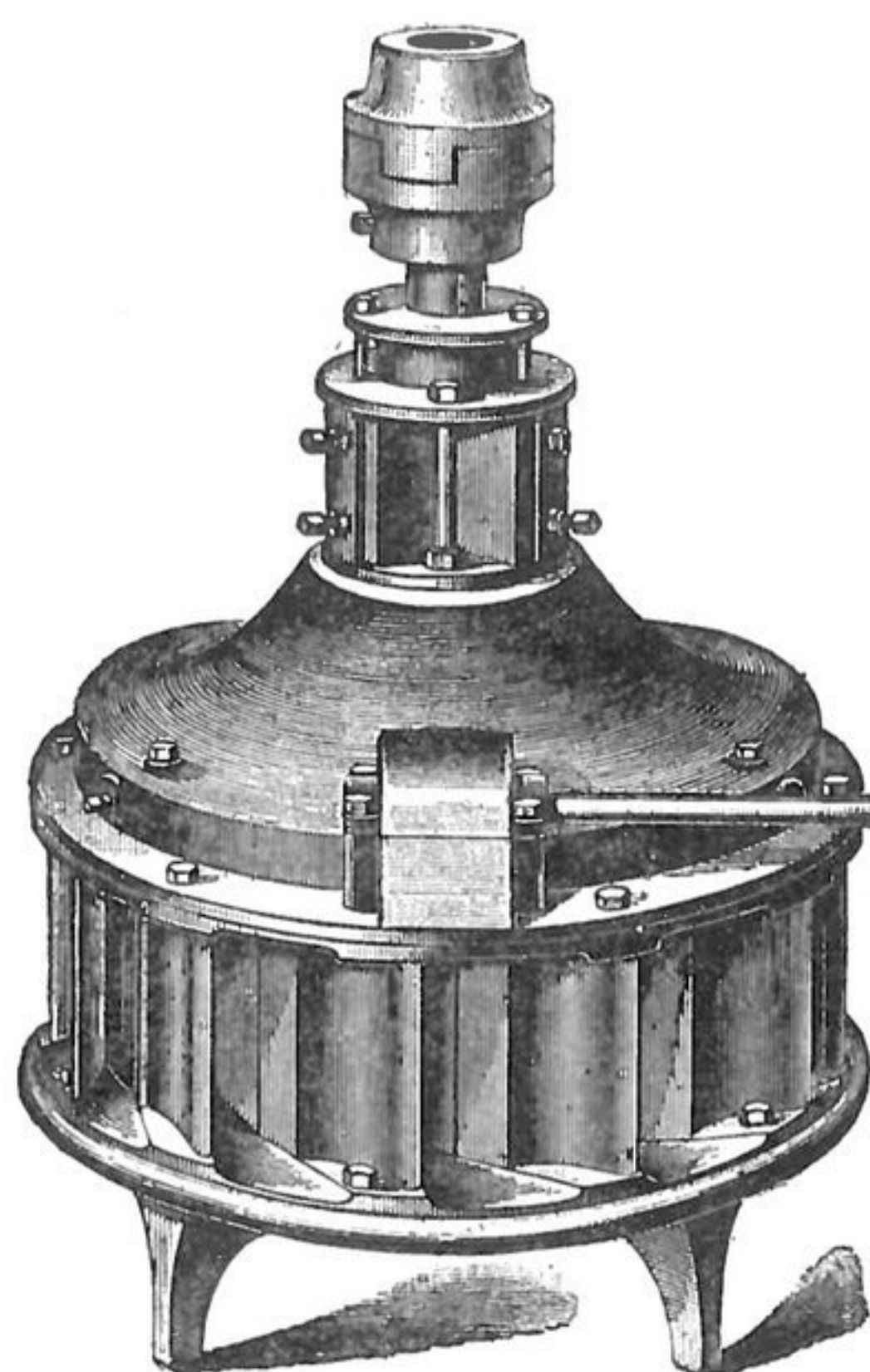


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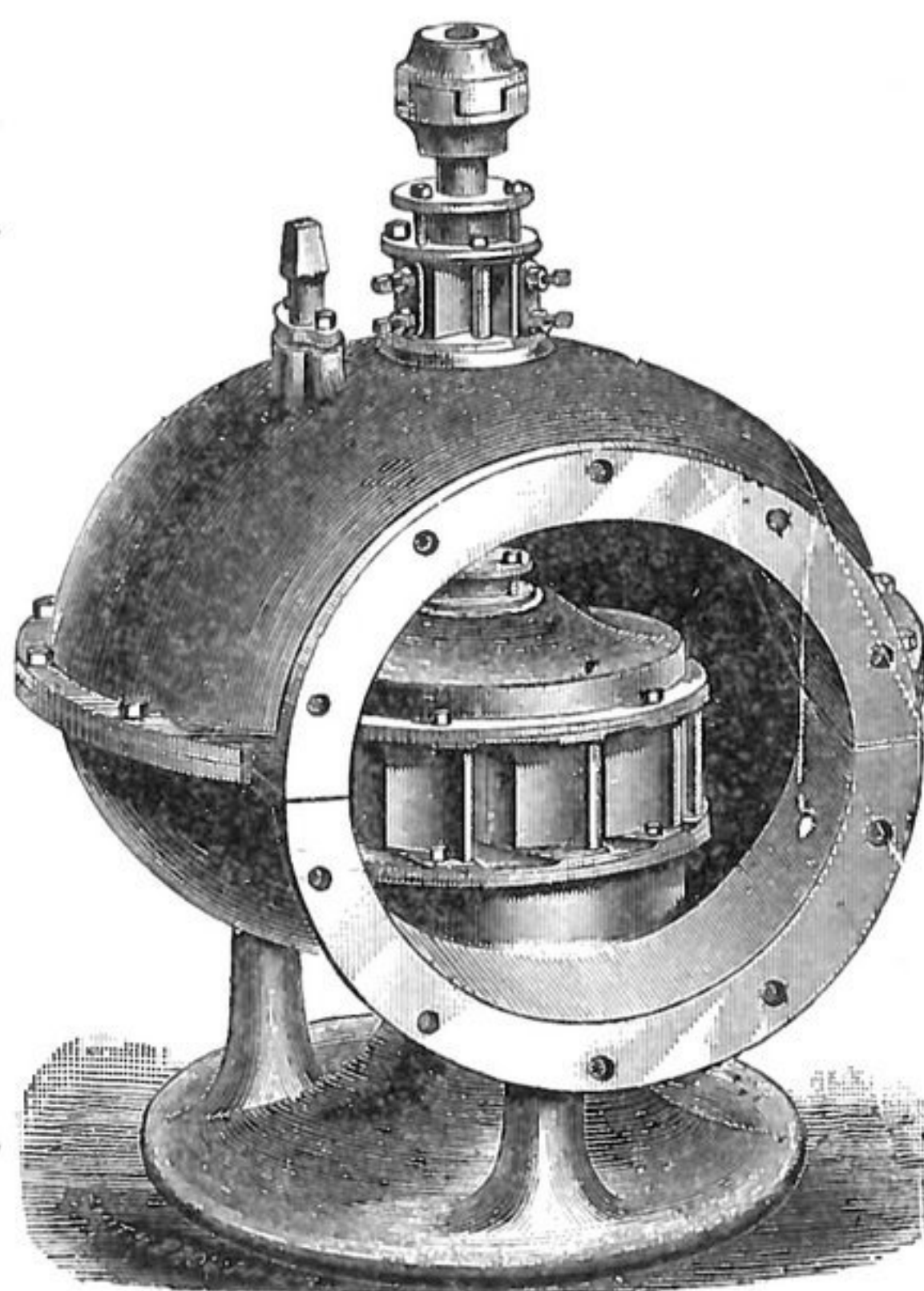
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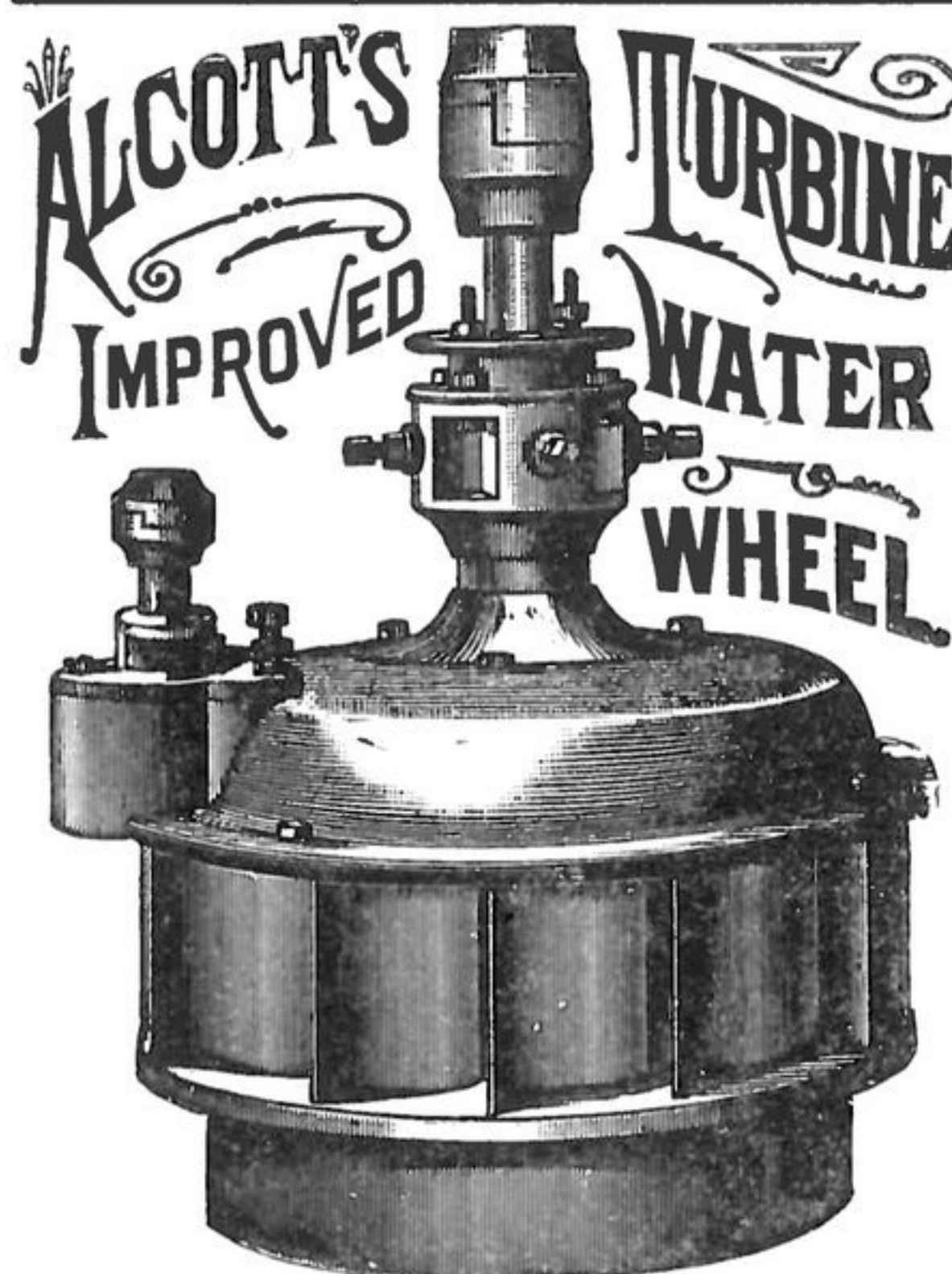
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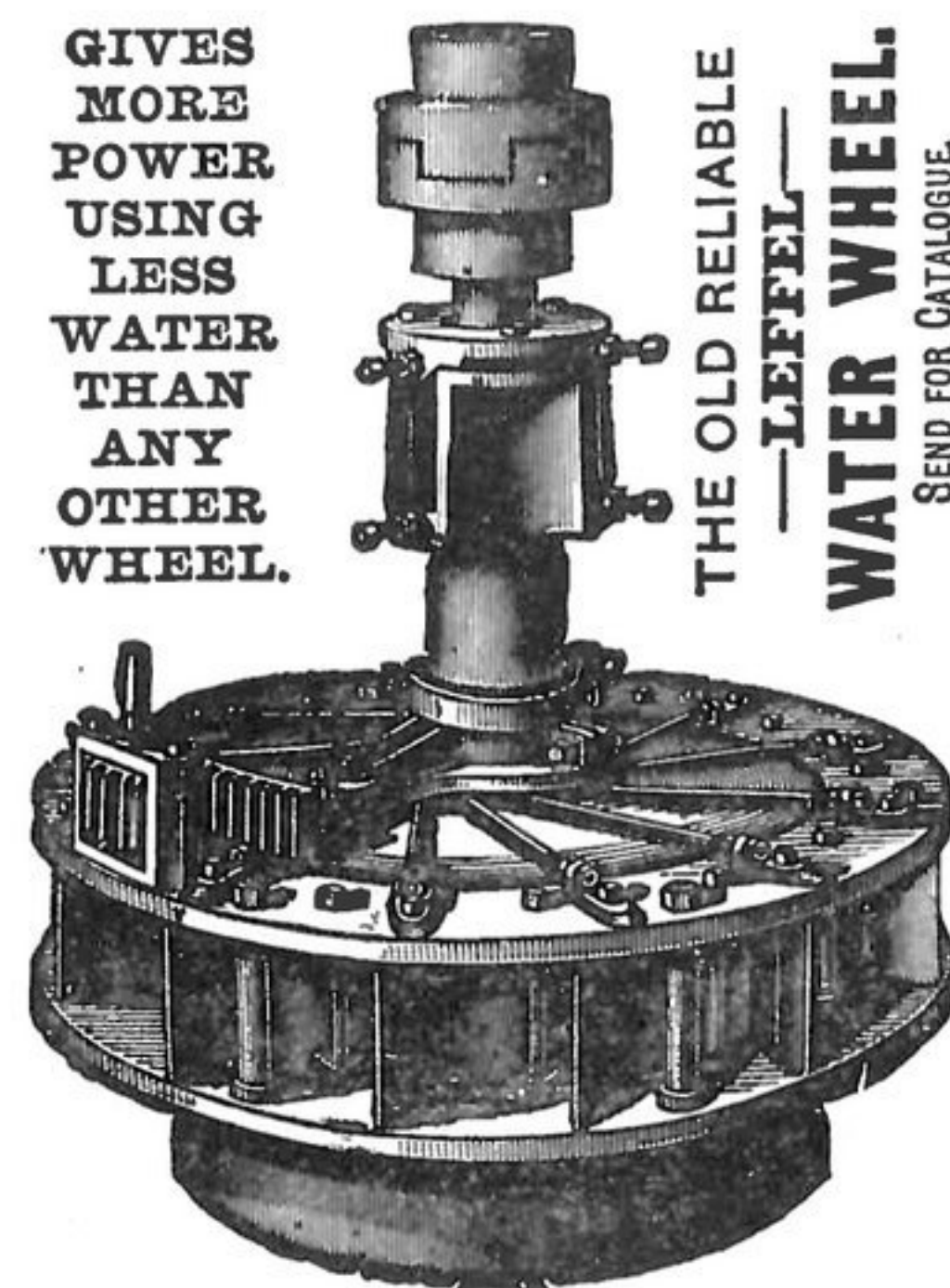
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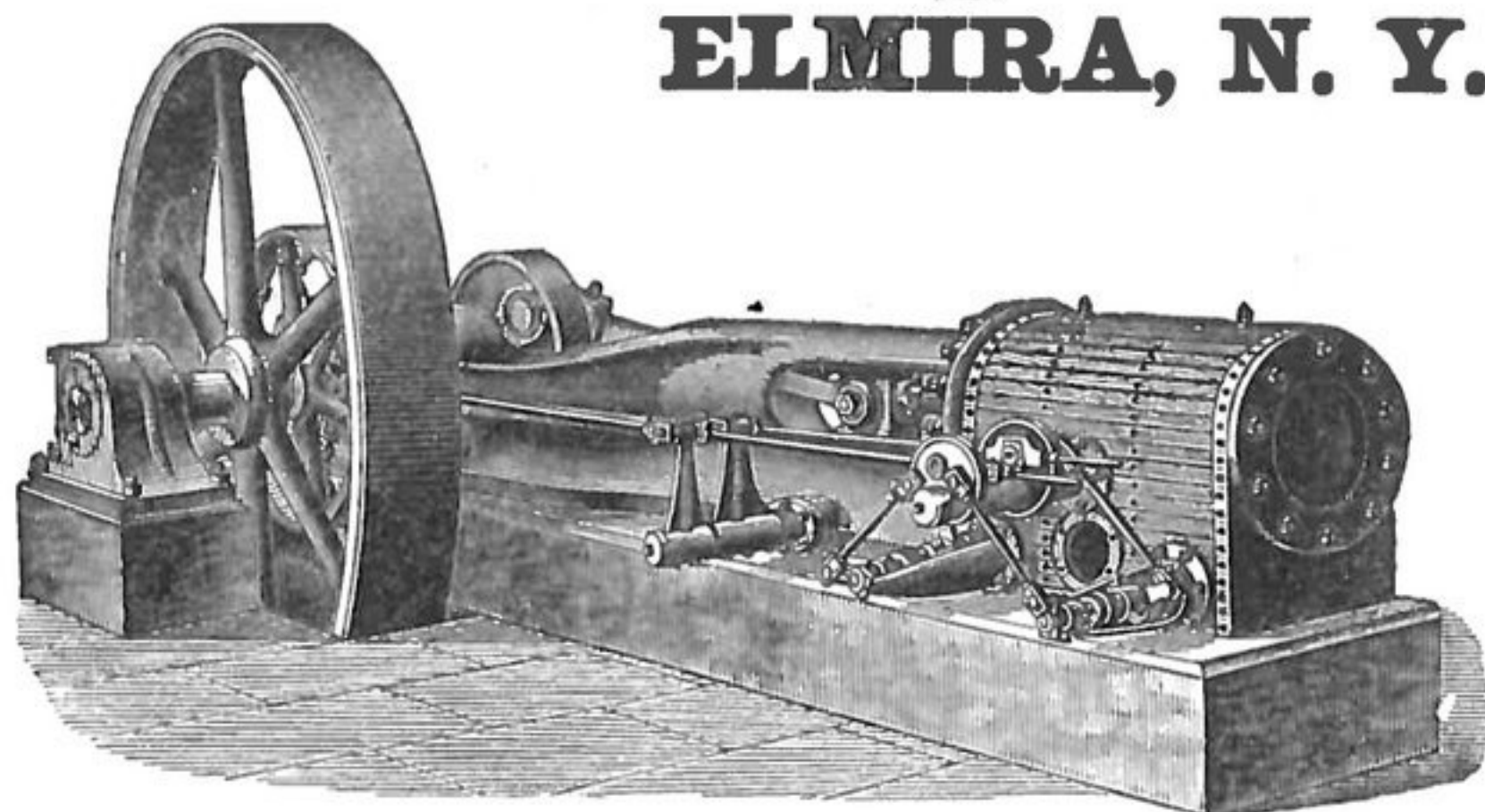
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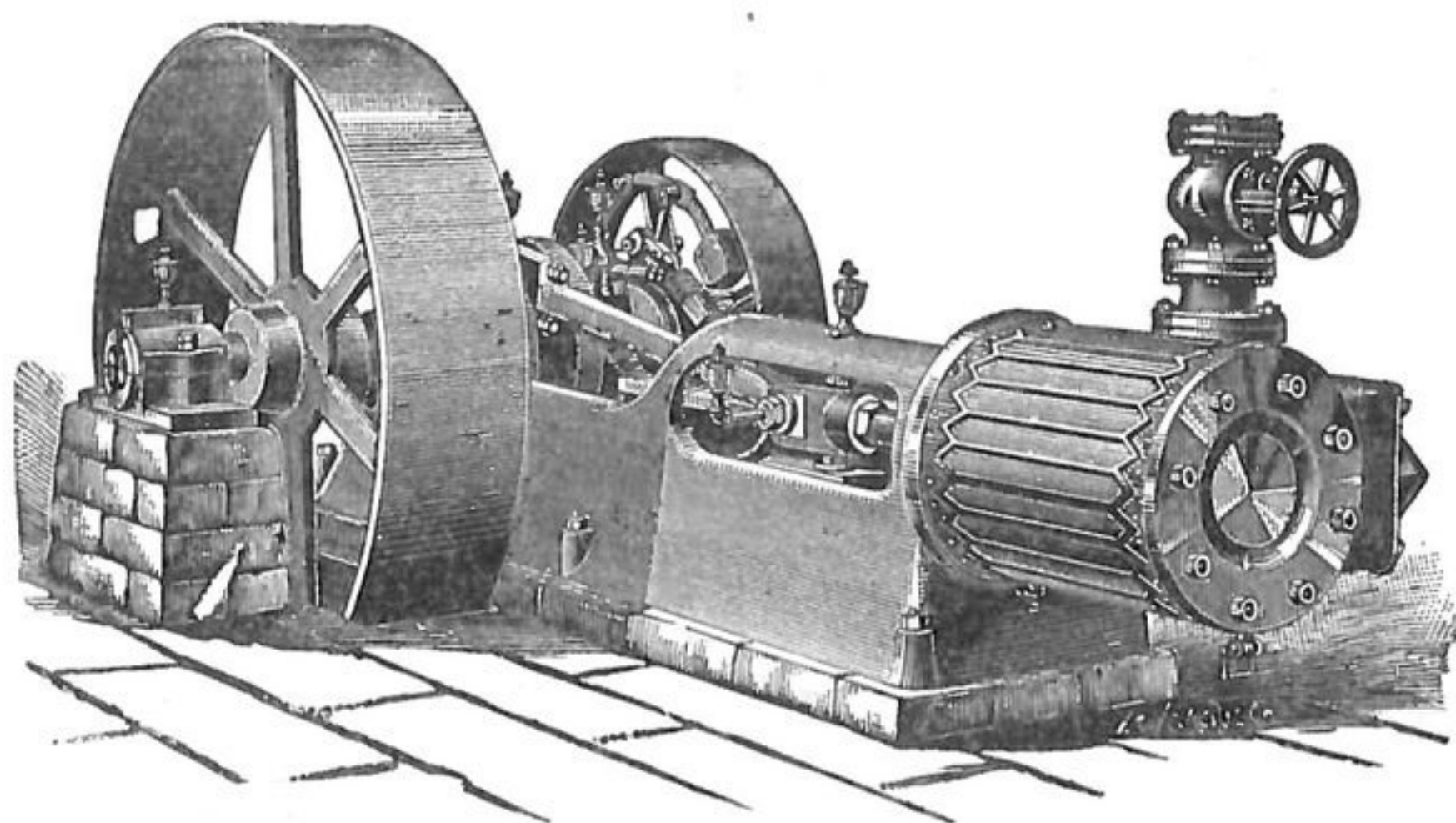


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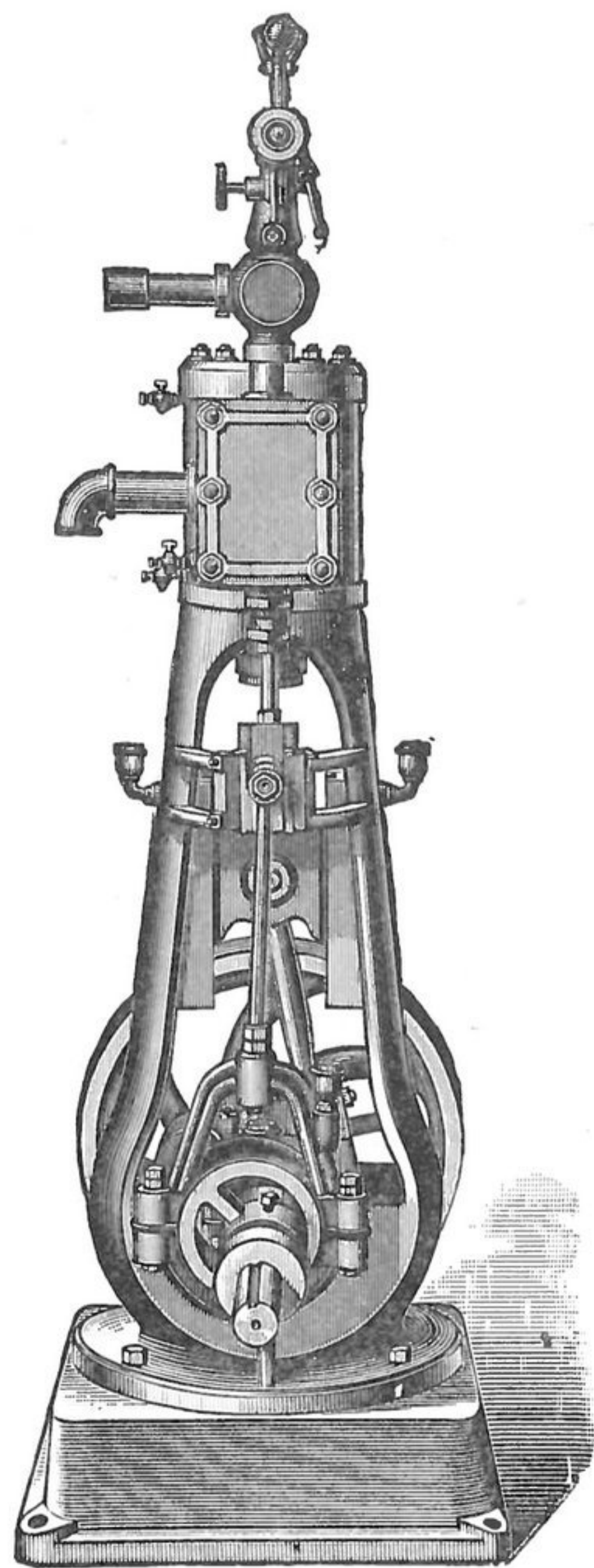
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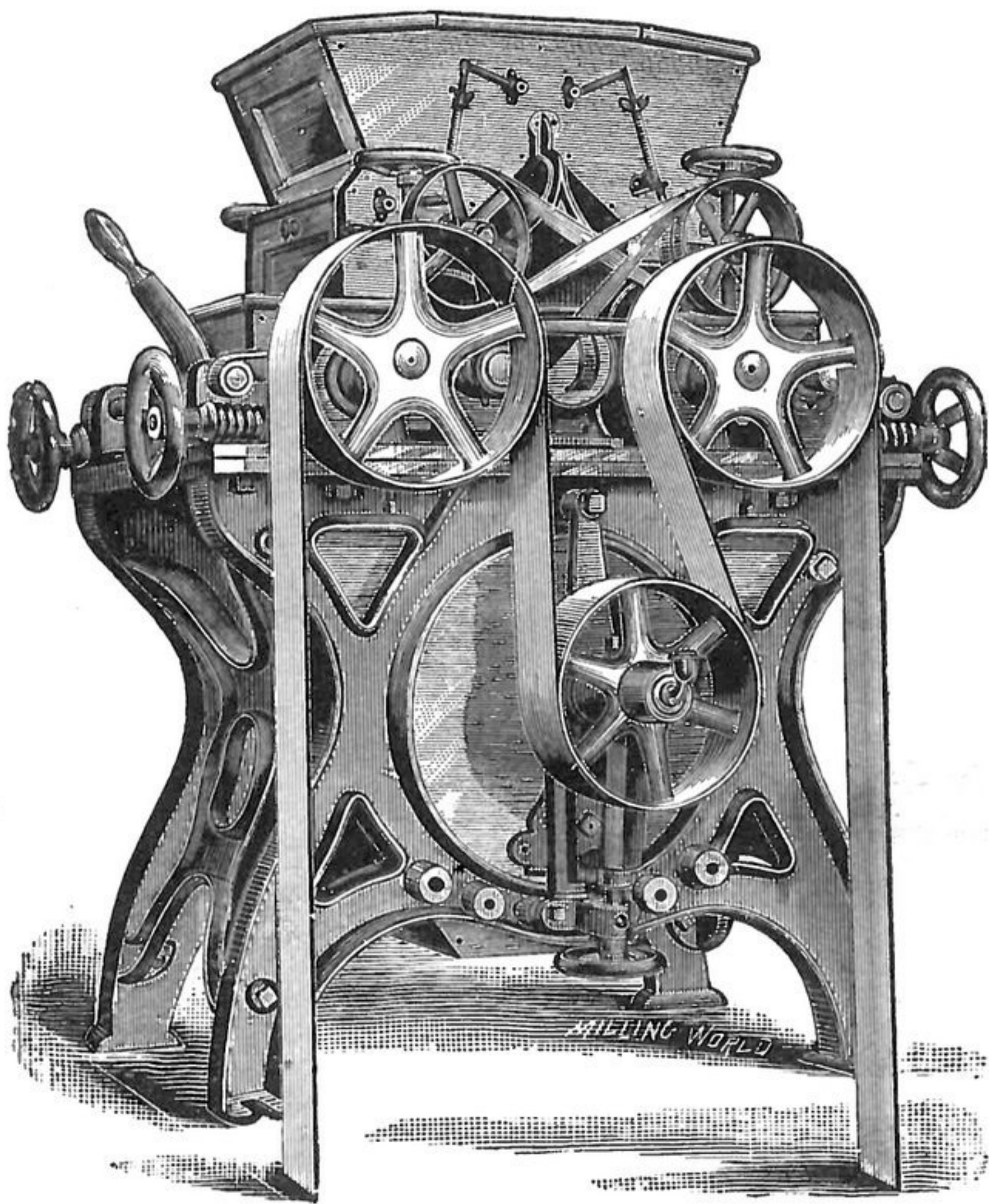


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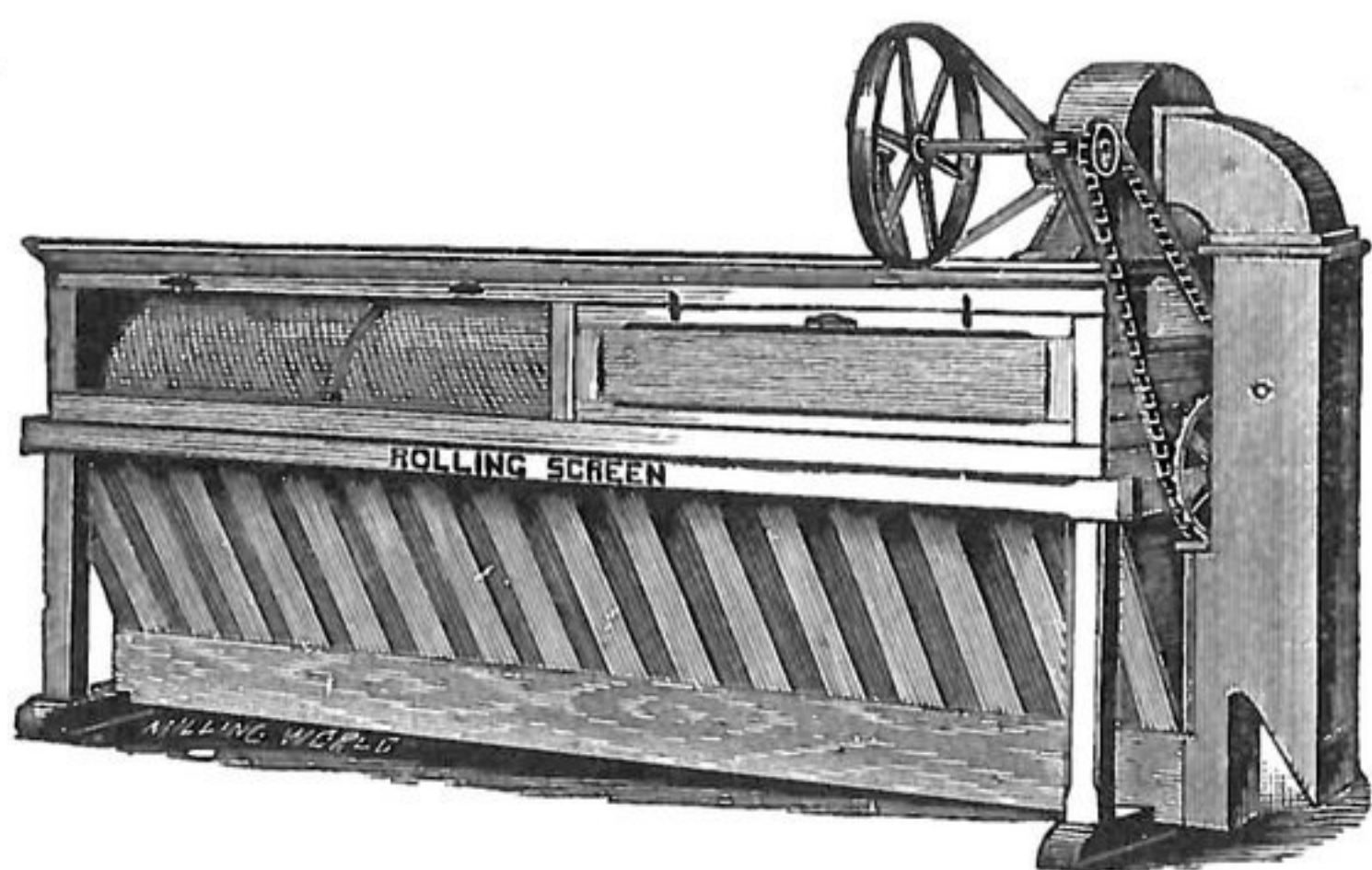
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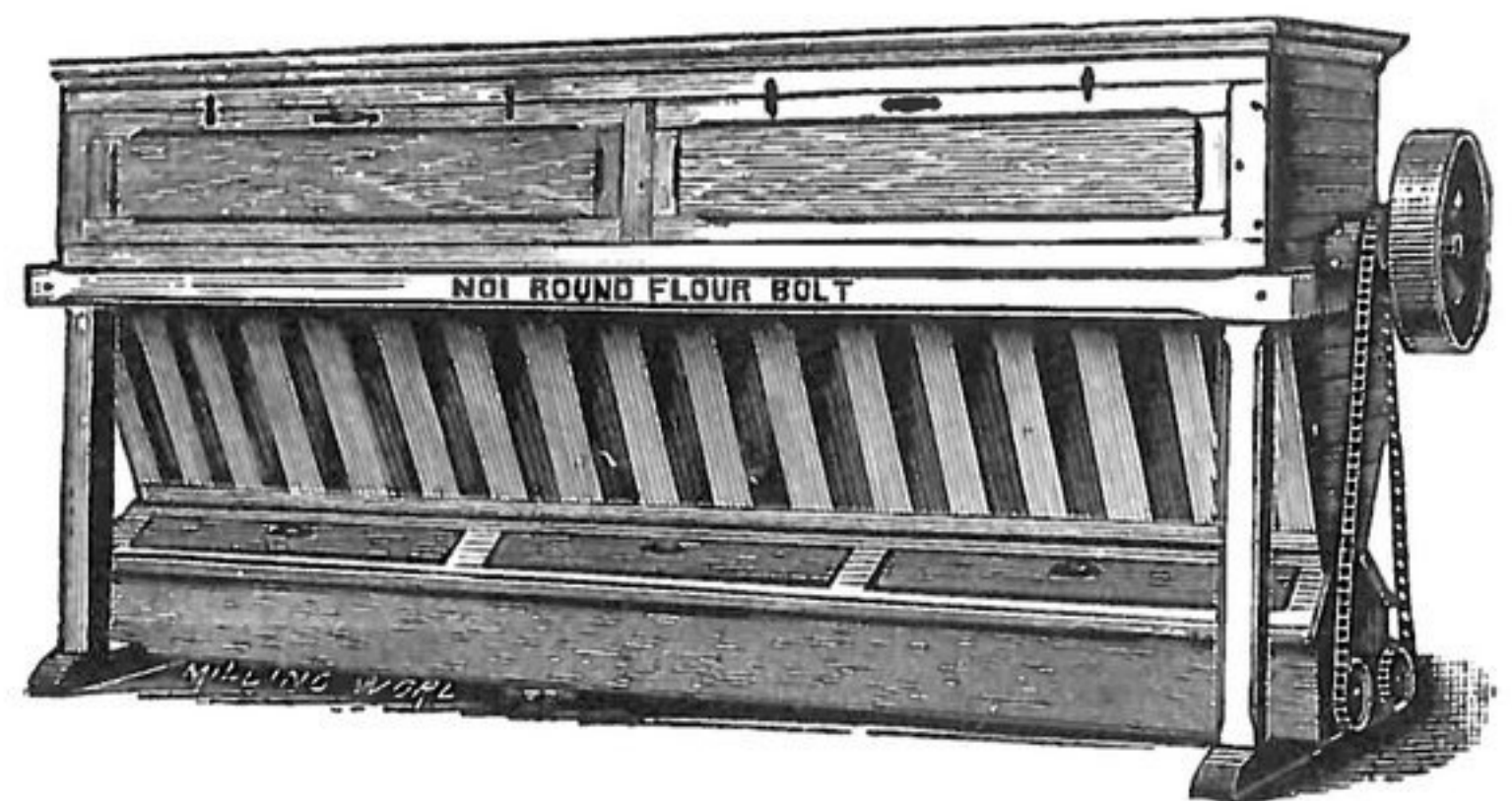
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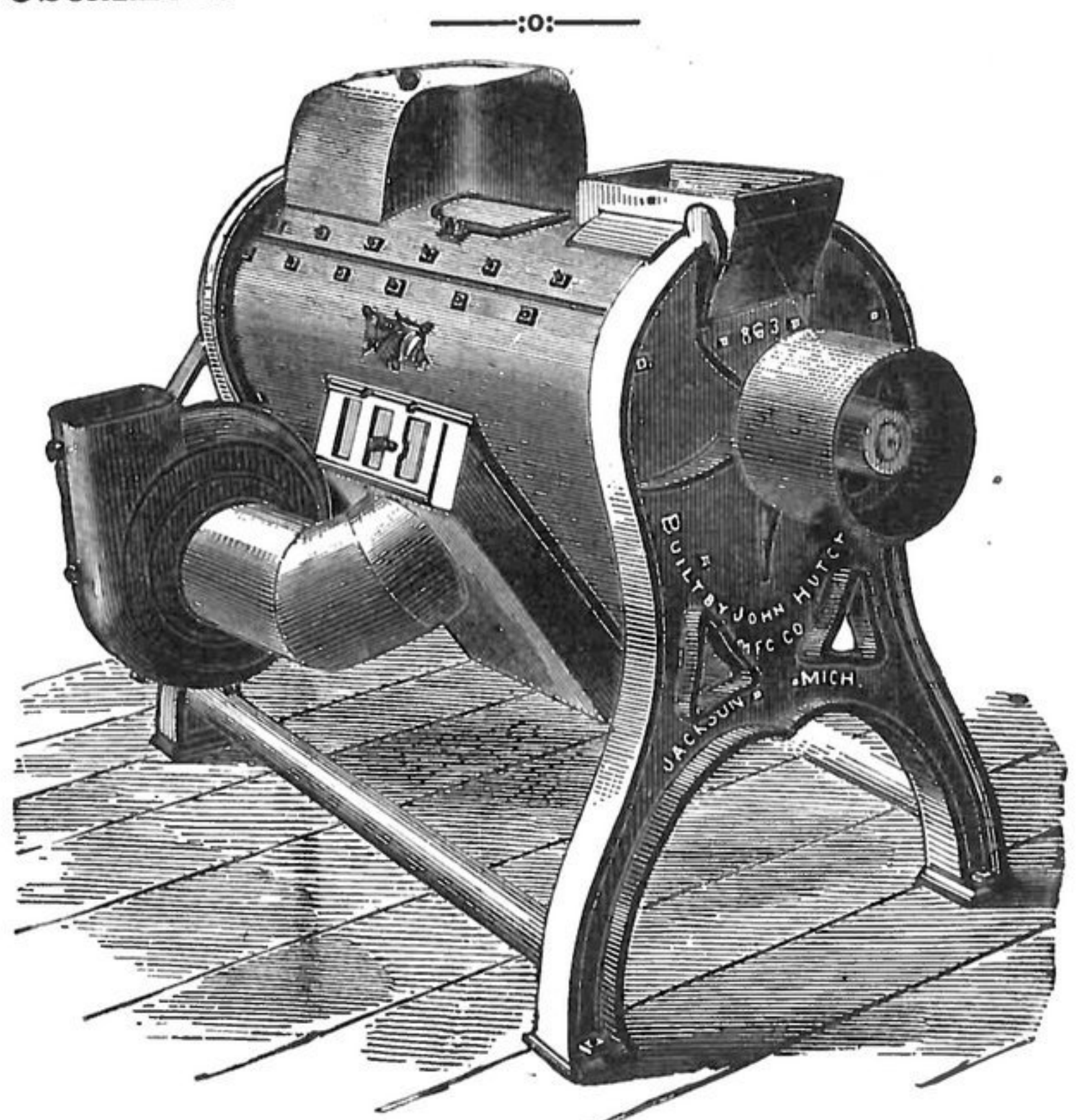


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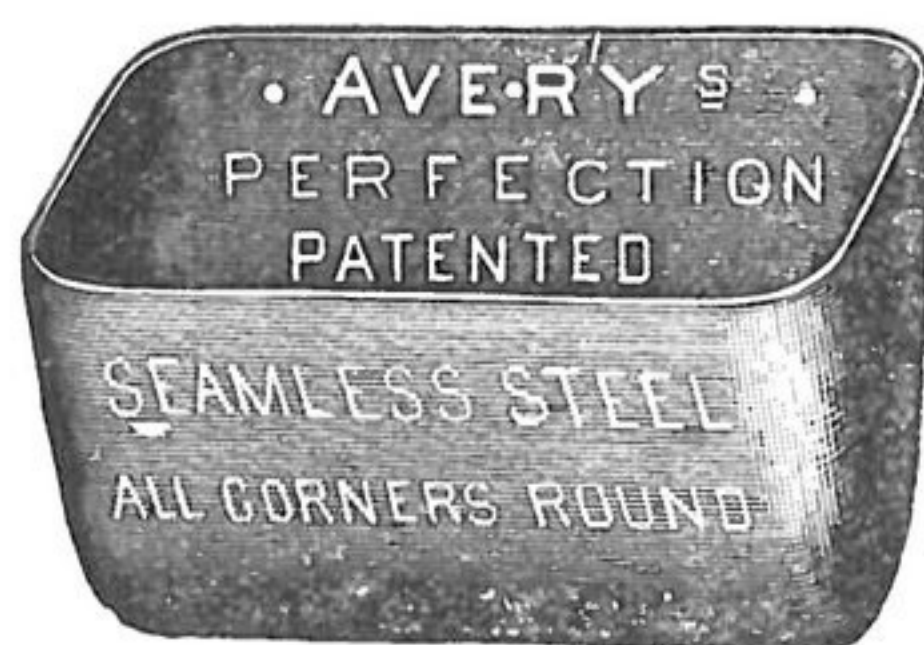


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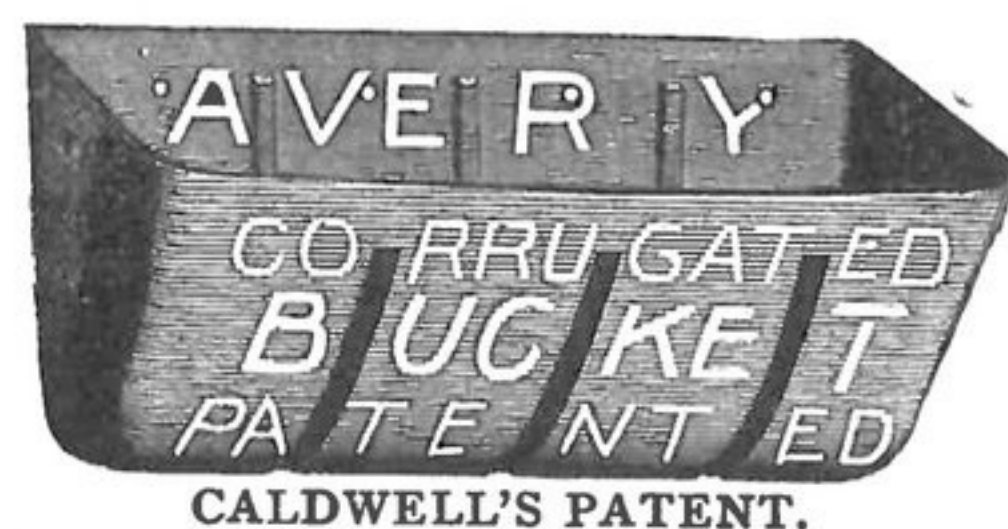
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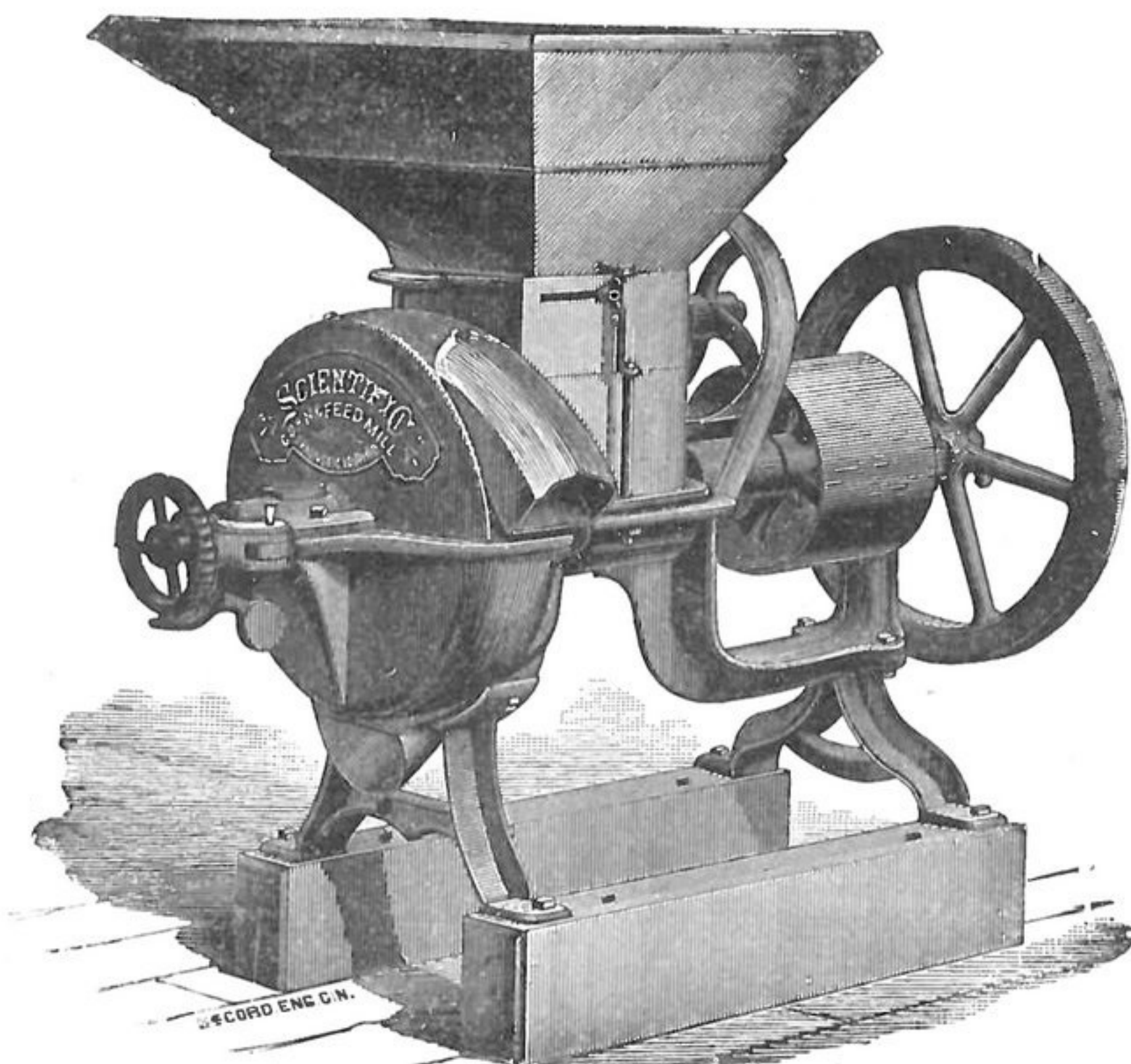
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